

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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Manufacturers' Record.

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BALTIMORE, SEPTEMBER 14, 1905.

The Manufacturers' Record has
opened an office in New York at 52
Broadway.

Hon. Henry G. Davis of Elkins, W.
Va., in a letter to the MANUFACTURERS'
Record referring to recent articles deal-
ing with West Virginia development,
says:

I have read with pleasure what has been
written on the development of West Vir-
ginia, and want to compliment you on the
information these articles contain. I am
glad that you are taking such an interest in
this State.

THE INLAND WATERWAY.

It is announced from Washington
that the board of army engineers
charged with making a new survey for
the proposed inland waterway from
Hampton Roads by way of the Carolina
sounds to Jacksonville, Fla., a part of
the long-considered project for inland
water communication along the coast
from the Hudson to the Rio Grande,
will endeavor next month to sound the
sentiments of business men and other
interests in the territory to be affected
by the undertaking, and to that end will
hold hearings at such points as Balti-
more, Norfolk, Edenton, Elizabeth City,
Washington, Newbern and Wilmington.
The new route is designed primarily to
furnish coastwise commerce a means of
escaping the dangers of a passage
around Hatteras, and, therefore, is of
vital importance not only for the com-
mercial world immediately tributary to
it, but to a larger element along the
Atlantic seaboard as far north as New
York or Boston. While shortening the
travel for coastwise commerce and safe-
guarding it, such a route, which will
avail itself, of course, of a number of
existing waterways, may be expected
to be of great value as a means of de-
fense for the country in case of at-
tempted invasion. The trip of the army
engineers should, therefore, be made the

occasion for a decided expression of
progressive opinion by commercial
bodies and others.

Advertisements of Southern local-
ities offering special advantages for
the location of manufacturing en-
terprises will be found on pages
58, 59 and 60.

COTTON.

Ten years ago Southern cotton mills
took 904,701 bales, or 36.1 per cent. of
the total number of bales taken by
American cotton mills. During the cot-
ton year just closed the takings of
Southern mills were 2,162,505 bales, or
48.6 per cent. of the total takings of
American cotton by American mills.
The progress made in this particular by
Southern mills during the past 10 years
is shown by the following table compiled
from figures of the valuable annual re-
port of Col. Henry G. Hester, which ap-
pear in more extended form on other
pages of this week's issue of the MANU-
FACTURERS' RECORD:

Year ended August 31—	Southern mills.	Northern mills.
1896.....	904,701	1,600,271
1897.....	1,012,671	1,804,680
1898.....	1,231,841	2,211,740
1899.....	1,330,399	2,190,085
1900.....	1,397,112	2,068,300
1901.....	1,620,931	1,967,570
1902.....	1,937,971	2,050,774
1903.....	2,000,729	1,967,635
1904.....	1,919,252	2,026,967
1905.....	2,163,505	2,282,145

It will be observed that with the ex-
ception of one year, 1904, the takings by
Southern mills have steadily increased,
while those of Northern mills have
shown wide variations and were actu-
ally less in 1903 than those of Southern
mills. But aside from the compara-
tively favorable showing for the South,
the fact that should engage the atten-
tion of all mills of the country, North
and South, is the failure of American
mills to maintain their position even as
consumers of American cotton. This
country produces about 75 per cent. of
the world's raw cotton. Ten years ago
the American mills took 2,504,972 bales,
or 34.9 per cent. of the total American
commercial crop. During the past year
they took 4,445,650 bales, or only 32.9
per cent. of the total crop. Generally,
it would seem more profitable for the
American mills to be manufacturing 75
per cent. of the American crop for the
markets of the world, including those of
the United States, than for the country
to be exporting its millions of bales of
raw cotton to be worked up elsewhere.
Exports of raw cotton, to be sure, swell
the total of the value of exports of
American products. The value of raw
cotton exported during the past fiscal
year was \$379,965,014, or more than 25
per cent. of the value of all domestic
exports. The value of exports of manu-
factured cotton was \$49,666,080. At the
same time this country imported manu-
factured cotton to the value of \$48,919,-
936. There is no insurmountable cause
for this disproportion between the value
of the exports of manufactured cotton
and the value of the exports of the raw
material, or for the practical balancing
of the values of exports and imports of

cotton goods. The home market for
American cotton goods is, of course,
steadily growing with the increase in
population by birth or through immigra-
tion. It is the nearest and largest mar-
ket for American cotton goods, and the
American cotton mills have naturally
been mainly occupied in meeting its de-
mand. That they are not fully up to
requirements is demonstrated by the
\$48,000,000 worth of cotton goods im-
ported. Yet it is obvious that, even
were such importation not called for,
the American market would still fall
far short of absorbing the output of
American mills working up anything
like three-quarters of the American
crop. The profitable increase in the
American textile industry, manufactur-
ing more American-grown cotton than
the home market may require, must
come, therefore, through an increase in
the exports of finished goods, either by
the finding of new markets opened with
the advance of modern methods in many
fields in Asia, Africa and South Amer-
ica, or by winning a larger share than
\$49,000,000 in existing markets. The
importation to this country of \$48,000,-
000 worth of cotton goods is a fact full
of thought material for American tex-
tile interests seeking this world trade.

CHICAGO, THE AMBITIOUS AND SUCCESSFUL.

The people of this country have so
long thought of New York as the finan-
cial center of the country, of Pittsburg
as its manufacturing center, of Chicago
as its railroad center, that the dominant
characteristics of those cities have as-
sumed in the public consciousness a
form of permanency. The conception
of either one of them wresting its pecu-
liar strength from any other or combin-
ing in itself the characteristics of all
may, therefore, be difficult to compre-
hend, but the conviction that some such
development is under way, through
evolutionary process, but with revolu-
tionary speed, grows with a contempla-
tion of the notable strides made in re-
cent years by Chicago as a financial,
commercial and industrial center, and
of its well-thought-out and wide-embrac-
ing plans for further progress on those
lines. The strength of Chicago is strik-
ingly revealed in two columns of special
correspondence from that city in the
New York Journal of Commerce, from
which the following statements have
been gleaned:

Chicago is the continental divide from
which the streams of traffic flow west, south
and east.

It rather takes one's breath away to be told
that Chicago's wholesale trade last year ag-
gregated \$1,481,000,000, an increase of 300 per
cent. in three years; that the live-stock sales
footed up \$300,000,000 more, and that the
value of the products manufactured within
the outer-belt line, an area of 38 miles square,
aggregated \$1,314,000,000, making a grand total
of \$3,095,000,000 as the amount of the year's
business.

The value of Chicago's manufactured prod-
ucts alone equaled two-thirds of the gross
earnings of all the railroads in the United
States.

The capital invested in manufacturing in
Pittsburg is now less than one-third of the
amount employed in the same lines in Chi-

cago, and the value of Pittsburg's products is
less than one-fifth of the value of Chicago's
output.

The reserve accounts in Chicago banks have
increased 168 per cent. in six years as com-
pared with 33 per cent. in New York banks.
Boston has gained 10 per cent. in 10 years.
The banks west of the Mississippi carry more
than \$700,000,000 in individual deposits, a gain
of 139 per cent. in six years. In the same
period their loans and discounts increased
133 per cent. The national banks of all the
rest of the country gained 65 per cent. in
loans and discounts and 72 per cent. in de-
posits in the same period. The territory
west of the Mississippi is tributary to
Chicago.

The raw material is at the very doors of
the factories.

Plans are under way to utilize immense
water-power, which is even cheaper than
low-priced coal.

There is available the most intelligent, and
therefore the most efficient, class of labor to
be found in all the world. New England
manufacturers testify to their appreciation
of this fact by sending to Western shops
when they want a complicated piece of new
machinery built.

The manufacturer of the middle West has
a shorter railway haul to reach the domestic
consumer than his competitor on the Atlan-
tic seaboard, for the center of population is
just east of the Chicago meridian at present.

It is an easy matter to finance a new under-
taking in the central West. Farms have
greatly increased in value, the farmers are
wealthy, and the local banks are surfeited
with money seeking investment. This money
is kept at home, where it is not disturbed by
any flurry, panic or cataclysm in Wall Street.

There will soon be completed a channel
from Chicago to New Orleans which will
have 14 feet of water for 240 days in the
year. This means that one tug will be able
to take six barges having an aggregate ca-
pacity of 20,000 tons from any port on the
Great Lakes down through the Chicago
drainage canal and the Mississippi river to
any port on the Gulf of Mexico or the Carib-
bean sea, for the barges will be constructed
to navigate rough water. This 14-foot chan-
nel will not only furnish a cheap road to
market, but the people of the central West
firmly believe will enable them to develop
and monopolize the shipbuilding industry.
Here is the material cheaper than on the
Atlantic or the Pacific coast, and here is the
labor. Vessels of the largest size can be
floated without their machinery down this
14-foot channel. Even a battleship, it is
claimed, could be floated from the Lakes to
New Orleans without armor, and the armor
could be taken down on barges at nominal
cost to be put in place on reaching deep
water.

Here are manifestations at the center
of a vast area of the United States,
with untold resources still to be devel-
oped and with territory capable of ac-
commodating many millions of inhab-
itants, which naturally lead the New
York Journal of Commerce to point out
that the trade area of the North Atlan-
tic seaboard at least "is being restricted
by an economic evolution as resistless
as the drift of a glacier." This evolu-
tion, pointing to a leadership for Chi-
cago, not only in transportation, in in-
dustry, in finance and in internal trade,
but also, with the channel from the
Lakes to the Gulf, in foreign commerce,
is of profound significance, not merely
for the sections likely to be immediately
tributary to Chicago, but for the whole
country, and especially for the Eastern
seaboard, which before the tremendous
drift of population beyond the Alleghe-
nies promised to sway the destinies of
the United States. In long-confirmed
habit these Eastern cities are wasting

their energies over rivalries for maintenance of control of the trade still trickling from the middle West along the older channels, while Chicago, with ever-increasing power, is grasping the sources of that trade, building up new trade of its own and diverting the common stream downhill toward the Gulf in preparation for the tremendous expansion of foreign commerce by way of the Panama canal. These Eastern cities must speedily adjust themselves to meet the changed situation. Less than a century ago Salem, Mass., flourishing through its East India trade, might have derided the suggestion that its commercial importance should wane before Boston and New York. New Bedford, Mass., was threatened with death when whaling lost its position of importance. But New Bedford took up manufacturing, and is greater than it could ever have been as a mere trading port. The experience of these two comparatively small communities may be studied with profit by great Atlantic ports, as Chicago, the ambitious and successful financier, the manufacturer and the trader, looms a thousand miles to the west.

CONQUERING THE MOUNTAINS AT LAST.

After many a long year of waiting, the rush to capture the mountain passes of the upper South is under way. Their conquest is not to be accompanied by the clash of arms, but by the homely music of drills, picks and shovels in the hands of toilers of the soil working to establish new lines of railroad communication through regions new to modern conditions, although envied by them. The near future, it appears, will witness the construction of several railways through the highlands of the Virginias and the Carolinas.

Immediately following the announcement of Eugene Zimmerman that the Cincinnati, Hamilton & Dayton and Pere Marquette lines would provide a railroad from the Great Lakes to the Atlantic ocean at Charleston, S. C., the Southern Railway awarded a contract to build the Johnson City Southern Railway across the mountains from Johnson City, Tenn., to Marion, N. C. The contractors already have men on the ground, and more are being sent forward to begin construction on the most difficult part of this route, that through the mountain regions. A survey for the road was started only in June, and the promptness with which construction has begun indicates its importance. Meanwhile the South & Western Railway, which is dominated by a syndicate composed of Seaboard Air Line directors, is pushing its extension southward from Spruce Pine, N. C., to a point near Marion, and beyond there towards Spartanburg, S. C. Northward the same company is building to get into the Toms Creek coal fields. Perhaps, according to reports, the Virginia & Southwestern Railway, which is after an entrance to the same source of fuel supply, may become allied with the South & Western in its intermountain extensions, although the former has its own charter, permitting the construction of a road to the sea. It is not improbable that some agreement will be reached to carry out such a joint plan.

Still another route is being built through the Carolina mountains, one which it seems will be taken up by the Zimmerman interests for their line. This is the plan of the Carolina & Northwestern Railway, which bought the Caldwell & Northern Railroad and is extending it. Practicable lines have

been run through the mountains by the engineers and a choice of two routes is to be made. Farther south is the scheme of the Greenville & Knoxville Railway Co. to build along the abandoned roadbed of the old Carolina, Knoxville & Western through the ranges to Tennessee, and not far away from this is the Southern's proposed connection, on which work has started, from Bushnell, N. C., to Maryville, Tenn. Coming up from Georgia in this vicinity is the Tallulah Falls Railway, headed for Franklin, N. C., but which will doubtless from there find a junction with the Southern's system in the Old North State.

All these various projects are believed to have found available routes through the mountains with lines not too severe, and most of them will doubtless be completed. The development of coal territory is primarily their purpose, but there is much other natural wealth amid the mountains which may be made of industrial value through the building of spur lines or branches from them. These would in many instances demand the use of geared locomotives to overcome the heavy grades, at least for freight business, although motor cars might be employed for passenger service. To be sure, in regions so sparsely populated as the remote valleys and uplands of Western North Carolina it would be necessary that such lateral lines should be constructed at a low cost, after the manner of many lumber roads. To secure this cheapness of construction the proximity of a large quantity of timber from which ties could be cut is favorable, and light rail or perhaps partially worn rails of sections now too light for main-line traffic might also be employed to keep down cost to a profitable basis. There is no doubt that there are many districts which could be afforded railroad communications on a satisfactory financial foundation providing that construction was done under the supervision of men familiar with local conditions and economic requirements.

Like impenetrable walls of iron the great Appalachian mountains of Virginia and Carolina for years bade defiance to all efforts of railroad projectors who several decades ago would have built trunk lines from ports on the South Atlantic coast to the great cities of the West. Their towering peaks, mighty ranges and chasmlike gorges seemed obstacles too tremendous to be overcome by engineering which would be permitted by business considerations. But commercial conditions have vastly changed, and what the past could not afford the present will assume with cheerfulness and profit.

TRAINING TO WORK.

The Charlotte *Chronicle* quotes from Mr. John Fritz's interview in the MANUFACTURERS' RECORD last week the following:

In some of the high schools of our country we are largely unfitting boys for the real work which gives them the opportunity of independence and self-reliance and mastery of a trade with the possibilities of unlimited advancement before them. Of dry-goods clerks and politicians and shyster professional men we are turning out a surplus, but of men who can run a machine shop, of good mechanics of all kinds, there is a growing scarcity, and yet the mechanic is more independent than any other class of people in the world unless it be a farmer, and even in many respects more independent than the best of farmers, as he neither has to depend upon sunshine or rain, wind or calm, earning from \$3 to \$6 a day, is in demand everywhere. Advertise for bookkeepers and dry-goods clerks and you have a surplus begging for a job; get slightly injured in some railroad accident and you will be beset by law-

yers seeking a chance to bring suit; but advertise for men who can do things, for the old-time all-around mechanic, and you almost seek in vain.

Commenting on this the *Chronicle* says:

The above-quoted views are in accordance with what appears to be the situation in this section of country as well. There is no end of young fellows who are applying for jobs and positions, and yet all the manufacturing plants are hunting men who can do things. It is very far from being enough to go to college to educate a man. It is necessary that the youth have training at some specific work, and that they have actual contact and experience with and as one of the working people. As Mr. Fritz states, some of the schools are actually disqualifying young men from becoming useful citizens. The education which is altogether scholastic is no good for practical purposes.

How many thousands and tens of thousands of wasted and ruined lives could be found not only in the South, but throughout our land, which might have been made productive of good to themselves and to the world by proper training? Boys are being educated away from honest manual labor, away from the trades and the farms where good, honest toil would bring its fair reward, to a contempt for the mechanic's and farmer's occupation. They are being educated to the belief that a dapper dry-goods clerk at \$10 a week holds a more honorable position than the honest mechanic who can build an engine or run one, or who in some lines may earn to \$10 a day, or to the farmer whose bread is earned by the honest sweat of his brow, but in independence. Thousands of boys who could have earned a good living as mechanics or farmers and been an honor to their country, with possibilities for advancement equal to every ability which they might develop, are poor clerks eking out a scanty living, because a dozen others stand ready to fill their places, or they have become shyster lawyers, a curse to their communities, or quack doctors sending many a poor soul into the other world in advance of the appointed time.

The world is crying for men. Manufacturers, railroad managers, mining operators are everywhere begging for men who can do things, and almost seeking in vain. Every business office is looking for boys who have the stamina to work, to think, to study for the best interests of their employers, but they, too, seek without finding, except in rare cases. Let any successful business man of today study the conditions under which he started life and what was required of him, and he will realize how difficult it is to find bright, intelligent boys willing and ready to follow the same paths.

We are setting up false standards, encouraging boys to grow up to live by their wits, to speculate in bucket-shops or gamble on baseball or the races, hoping to win a dishonest dollar in place of working to earn an honest dollar. Something is radically wrong, and the people of the South at least should begin to study to see wherein we are making mistakes which are sending so many to ruin who might have been saved.

Reflecting a growing conviction on this subject are letters from Southern manufacturers published on another page of this week's issue of the MANUFACTURERS' RECORD.

Mr. J. A. Holmes, State geologist, Chapel Hill, N. C., in order to complete his files, is anxious to secure numbers 12 and 17 of Volume XLI of the MANUFACTURERS' RECORD, dates of April 10 and May 15, 1902, respectively. Any one having these copies and not desir-

ing to bind them will confer a favor on Mr. Holmes by communicating with him.

THE SOUTH NO BEGGAR.

Ignorance inexcusably dense of comprehension of widely-known facts and spleen readily explainable were it worth while are signally manifested in the following reference to the MANUFACTURERS' RECORD lugged into an essay of the *News-Leader* of Richmond, Va.:

"The Record bitterly opposes the Ogden movement for improving educational conditions in the South, in face of the fact that the South is unable to supply proper educational facilities for herself and in all probability will be the next 20 years."

It is a fact that the MANUFACTURERS' RECORD opposes the Ogden Movement. Developments of the past three years, and especially of the past three months, have emphasized the wisdom of our course, unaffected by the wild tirades of three or four papers like the *News-Leader*, notorious in this respect for their unreliability as mediums of news. But that is the only fact grazed by the statement of the *News-Leader*. Without reference to the individuals or institutions in the South on the salary list, the publicity list, the subsidy list or the waiting list of the Ogden Movement, that enterprise has been supported by a few earnest, disinterested Southerners because they have been misled to the belief that it was "for improving educational conditions in the South." The uncoiling of the scheme has proved that it cannot improve educational conditions anywhere. One of its inherent evils, recognized at the outset by the MANUFACTURERS' RECORD, is strikingly manifested in the fact that a paper like the *News-Leader* of Richmond, which displays practical, common sense on most subjects, permits itself to be hobbled now and then by a most regrettable state of mind that apparently supports the Ogden Movement ostensibly on the ground that "the South is unable to supply proper educational facilities for herself." Such an abject confession in the face of nearly a quarter of a billion dollars annual increase in assessed property values in the South voices the pitiable spirit, fortunately rare in the South, to which Ogdenism appeals, but which, if not suppressed, will result in the loss of self-reliance and self-respect. It would make a mendicant of the South. But the South has no reason to play beggar for its schools.

WANTS ENGINE.

Bartow, Fla., September 11.

Editor *Manufacturers' Record*:

Dear Sir—A few days ago I had occasion to look through your MANUFACTURERS' RECORD to find advertisement of the Globe Marine Engine Co., but failed to find it. Will you please favor me with name and address of that concern and another of real good gasoline engine makers.

J. R. GAGE.

[This is a sample of hundreds of letters received by us asking for information about machinery of all kinds. Very generally these letters can be answered simply by referring to the advertising columns of the MANUFACTURERS' RECORD, which is the great "buyers' guide" for those who want machinery. Moral: Advertise in the MANUFACTURERS' RECORD.]

THE COTTON MOVEMENT.

In the first eight days of the present season the amount of cotton brought into sight, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, was 251,928 bales, an increase over the same period last year of 71,654 bales; the exports were 87,209 bales, an increase of 20,460 bales; takings by Northern spinners were

29,330 bales, an increase of 4949 bales; by Southern spinners 47,000 bales, an increase of 15,758 bales.

SLOSS-SHEFFIELD DIVIDEND.

The Sloss-Sheffield Steel & Iron Co. has declared a scrip dividend of 33 1/3 per cent. on its outstanding common stock of \$7,500,000. The \$2,500,000 additional stock thus distributed has been in the treasury since the organization of the company. The Sloss-Sheffield is now paying at the rate of 5 per cent. on its common stock, and it is understood that it expects to continue at this rate, notwithstanding the increase of its stock by the scrip dividend from \$7,500,000 to \$10,000,000. President Mahen, in referring to the scrip dividend, states that since the organization of the company it has expended over \$3,000,000 in the purchase of new properties and the development of its mines and furnaces, which justifies the special dividend. The financial report of the company for the quarter ending August 31 was as follows:

	1905.	1904.
Net profit from operation.....	\$391,423	\$214,815
Interest and taxes.....	60,000	60,000
Surplus.....	\$331,423	\$154,815
Preferred dividends.....	114,000	114,000
Surplus.....	\$217,423	\$40,815
Previous surplus.....	2,690,366	2,400,335
Total surplus.....	\$2,907,789	\$2,441,210

The earnings for nine months ending August 31, as compared with previous years, were as follows:

	1905.	1904.
Net profit.....	\$1,175,091	\$742,699
Deprec. rep. and res. fund.....	46,871	46,871
Balance.....	\$1,175,091	\$695,729
Interest and taxes.....	180,000	180,000
Surplus.....	\$995,091	\$515,729
Preferred dividends.....	342,000	342,000
Surplus.....	\$653,091	\$173,729

10,000,000 TONS OF SULPHUR.

Immense Deposits in the Trans-Pecos Region of Texas.

[Special Dispatch to Manufacturers' Record.]
El Paso, Texas, September 12.

Since 1854 spasmodic efforts have been continuously made to place before the world the presumptive status of the sulphur field of the trans-Pecos country located to the north of the Texas & Pacific Railroad in El Paso county, Texas. Continual examinations have been pursued by some of the ablest geologists of our country, but without a knowledge of economic conditions. Following my report of the vast possibilities of Texas petroleum, I am pleased to state, through the columns of the MANUFACTURERS' RECORD, that the sulphur deposits of this section of the country will justify the statement that with the proper development foreign importation may be totally suppressed. My examination demonstrates the fact that over 10,000,000 tons of 40 per cent. native sulphur ore are available.

The importance of this conclusion is of paramount interest to the South, as it will redound to the benefit of the agriculturist, particularly so in the production of cotton. This opinion is based upon the fact that large quantities of sulphur are used in the manufacture of fertilizer.

It is a well-known fact that, outside of the actual cattle industry, the section of the country traversed by the Texas & Pacific Railroad and other railroads from Pecos to El Paso is practically devoid of freight. It must be understood that the operation of 200 miles of railroad with a small freight-earning capacity is not profitable, and that the development of the sulphur fields under consideration will probably add from 60,000 to 80,000 tons to the earning capacity of the roads in this section.

It is true that the nearest available sulphur mine lies 20 miles southeast of the nearest railroad station, Toyah. The construction of a railroad to these proper-

ties, which extend from the 20-mile boundary 70 miles in a northwesterly direction, would assist the railroads in many ways, as a totally new country would be opened and a short line with but light grades could be constructed from Pecos to El Paso.

The importation of native sulphur from Italy and other countries amounts to from 80,000 to 200,000 tons per year, and so large has been the demand for this product in this country that the use of iron pyrites has been resorted to in the manufacture of sulphuric acid. The total yearly consumption of our country amounts to, approximately, 500,000 tons, most of which has been recently derived from the pyrites mines in Louisa county, Virginia, and the Italian field.*

The importance of this discovery will largely affect the agricultural interests of the South by causing a reduction in the present cost of the manufacture of fertilizer to the extent of about 20 per cent. There are, of course, some conditions against the immediate developments of this proposition. These are founded on the lack of railroad facilities and on the fact that it is difficult to obtain fuel and water in this region for the establishment of a plant of sufficient magnitude to reduce the ores into brimstone itself.

The ore is the result of natural chemical conditions produced during the Lacustrine period, which was one of the phenomena of the arid sections of Texas during the Pliocene Age. This has been thoroughly demonstrated by my own examinations and the microscopic determinations of Mr. M. K. Cunningham of Mobile, Ala. The visible supply of sulphur so far as determined by me is sufficient to offset the present rate of importation for the next 20 years.

The world's sulphur supply is easily monopolized by the Anglo-Sicilian Sulphur Co., Limited, of London, England, and in order to protect this infant industry here it will be necessary to maintain the present import tariff on this commodity. The disturbance of the tariff rate at present is improbable, and would disturb this infant industry.

My examination of the sulphur fields leads me to the conclusion that the available sulphur covers about 10,000 acres, with a thickness averaging nine and one-half feet.

C. F. Z. CARACRISTI.

[Special Dispatch to Manufacturers' Record.]
El Paso, Texas, September 13.

The Texas sulphur property has been bought by Illinois capitalists represented by O. A. Dunlop of Bloomington, and it is believed that European money may be behind the deal.

C. F. Z. CARACRISTI.

Birmingham Iron Market.

[Special Dispatch to Manufacturers' Record.]
Birmingham, Ala., September 12.

The iron market is firm on a basis of \$12 for No. 2 foundry. A few sales are reported about this price for delivery in first quarter of 1906, and a few sales are reported at a slight cut for prompt delivery. The basis of \$12 is average price. The low grades offering have been absorbed, and the market is cleaned up. There is an appreciable increased demand for the higher grades, and in some cases higher prices are recorded. Taken altogether, the market is very firm on a basis of \$12, with very fair trading. J. M. K.

Assessed valuation of property at Dallas, Texas, this year is \$39,721,100, an increase of \$2,465,830 over last year.

The Conway (Ark.) Board of Trade has been organized with Capt. W. W. Martin, chairman.

*Louisiana leads in the production of native sulphur in this country.—ED. MANUFACTURERS' RECORD.

PARKERSBURG'S OPPORTUNITIES FOR PROGRESS.

[Special Correspondence Manufacturers' Record.]

Parkersburg, W. Va., September 2.

"Come to Parkersburg and I will convince you that we have the best location for a manufacturing city that you have ever seen."

Thus declared Mr. O. S. Hawkins, the very wide-awake manager of the West Virginia Real Estate Co., whom I met just as I was beginning my West Virginia investigations, some two months ago.

Fortifying this sweeping outburst of enthusiasm Mr. Hawkins continued: "A glance at the map will demonstrate that nature has created an economic condition at Parkersburg for the manufacturer that cannot be surpassed in the country, and that will make the Ohio valley adjacent to Parkersburg the greatest industrial beehive in the world."

At that time I can hardly say that I listened with entire credulity to these whispers of suspected fancy. Since then I have seen Huntington, with her broad area of splendidly-situated townsite, her great railway and river transportation facilities, and her vast stretch of tributary country, only just beginning to be developed, and I have recognized an industrial opportunity there that will certainly draw around it in time a city of a hundred thousand souls. I have visited Charleston, with her solid and substantial development, her peculiarly advantageous location with reference to coal and gas fields, timber supplies, water transportation and railway facilities, and her already numerous and gigantic industrial enterprises, all of which undeniably foretell an industrial and commercial growth of the first importance.

I returned, therefore, to a consideration of Parkersburg rather more disposed than at first to question the soundness of Mr. Hawkins' position. Since looking the situation over, however, I am forced to the conclusion that if Parkersburg doesn't become a great industrial center, even in the way that Pittsburg is great, it will be because the people of the city do not, as a whole, arouse themselves to a strenuous utilization of their tremendous possibilities. Nature has truly done much for Parkersburg, and the work of man is adding vastly to those advantages in the rough. Thus, to the miles of ground on every side that may be built upon by factories, business blocks and homes, there is being given not only railroad transportation to the four corners of the globe, but such a system of waterways as will lay at Parkersburg's feet the treasures of coal, oil and timber that West Virginia contains, and the ores of the Mesaba as well, and she will have such transportation facilities and rates as may be envied by the most favored location on the map. No city will gain more advantage by the government improvement of the Ohio river, for Parkersburg will be almost in the center of the pool between locks 18 and 19, so that there will be afforded shelter here for more than 500 boats. The government has also undertaken the improvement of the Little Kanawha, which joins the Ohio here, and it will be put in shape to transport by barges the Pittsburg and Freeport coals of the interior down to Parkersburg and beyond. Of paramount importance, however, in the line of creating possibilities for a really great industrial center here is the canal between Lake Erie and the Ohio, which will give Parkersburg a cheaper rate on the Lake Superior iron ores than Pittsburg gets or any other city where equally cheap fuel may be obtained.

Briefly, these are the advantages Parkersburg now has in hand and in sight, for work is under way on all these transportation line improvements, and the first stages of completion will be seen within two years' time. In the aggregate these advantages certainly constitute a situation of extraordinary strength, and in their contemplation there is opened up to even the least imaginative mind a vista of possibilities broad and wide and well-nigh without end.

Yes, the opportunity is here for great development. The extent of the development and the time it takes are matters entirely within the hands of the people here. Given enough men of the right sort, with grit and vim and enterprise, and with money enough to do things on an adequate scale, and Parkersburg ought to have furnaces and steel mills and machine works, car shops, wheel works and foundries, glass plants, furniture factories and every kind of woodworking establishment, as well as potteries, all kinds of clayworking plants, and the hundreds of other industries related to all these, and ought to have them on such a scale and in such a time as would amaze a world to which the name of Parkersburg now gives small suggestion of extraordinary industrial activity or even of opportunity of an unusual sort. With a Carnegie, a Phipps, a Frick or a Schwab among the citizenship of Parkersburg there would seem to be no reason why a development on even Pittsburg's scale might not be brought about. Whether any such giants are concealed among the present population of Parkersburg I do not know. A casual acquaintance with the place would lead me to doubt it very much. As a matter of fact, it seems to me that about all of West Virginia is just now between the pioneer and the developing stage of its career. Those people who have made fortunes here are, naturally enough, reluctant to venture far afield in untried paths, and great manufacturing undertakings are usually out of their line. Almost without exception the rich people of West Virginia have made their money pioneering—out of lands bought at a few cents an acre a score of years ago or so; out of coal-mining operations or royalties; out of timber, and that in such an elemental way as trading in standing timber and the buying and selling or sawing of logs; out of oil wells, lands and leases, and ditto as to gas. Generally these men seem to consider that they have finished the course and are now entitled to receive their reward. They are not sighing for new worlds to conquer, and have no thirst for the glory of further great achievement. They have prospered, most of them, far beyond their wildest dreams of youth, and they are content. "Let others now toil and sweat and spend their substance and their strength in whatever way they choose. None of it for me!" "In looking after the affairs I have there is employment enough for me." Such is the implied if not the avowed attitude of West Virginians of the successful sort, according to the impressions I have today, and I think that outside of communities like Wheeling, a manufacturing center from early times, and excepting individual cases everywhere, I may lay it down as a rule that the thoughts of West Virginians are not bent on industrial undertakings of the more impor-

tant kind. I doubt if there is in West Virginia one man who imagines it is in him to become an ironmaster one-hundredth part as great as Andrew Carnegie; and what is needed at Parkersburg is one man or more, with ability of the real first class, who will venture everything and pull people with him in the unshakable determination to turn to successful account every element favorable to the establishment at Parkersburg of one of the great big iron and steel centers of the United States. In that way I think it might be done, and I have an idea that when it is done the main means and the master spirit will be from the outside, the money will be money made in the iron and steel business elsewhere, and the man will be one who is fairly saturated with the knowledge of the business.

But it will take some determined and persistent effort on the part of home people to find and interest such outside factors. West Virginia has for so long a time been skipped by big developers that it may not be safely left for changing conditions to now make their own appeal for the world's favor and consideration. I doubt if there are today 3 per cent. of the men whose every interest is wrapped up in iron and steel making the country over who have seriously studied the effect the development of the Ohio & Erie canal will have on the cost of iron-making, or who can even give an outline of what such improvements will be like. And yet, if Parkersburg grasps the situation aright and makes the utmost of her opportunities, she will so diligently spread this information abroad that it will become, by the time the canal is built, as familiar to the public as the Ohio river or the Erie Lake.

There are truly wonderful possibilities for Parkersburg in the improvement of this canal, and in the other improvements which are in hand, for the ultimate object is to provide a 9 or 10-foot stage of water from the coal fields of the upper Little Kanawha to and past Parkersburg and up the Muskingum and through the Ohio & Erie canal into Lake Erie at Cleveland. This would provide navigation for 500-ton vessels, which could be loaded with ore at Cleveland, brought to the wharves of Parkersburg direct, and the empty barges could be taken up the Little Kanawha and loaded with coal destined for Cleveland or any point on the Ohio river. It is computed by accredited authorities, United States government engineers, in fact, that with a nine-foot canal ore could be brought from Cleveland to Parkersburg at a cost of 20 cents per ton or less, which, with 30 to 40 cents per ton for transfer from ships to canal boats at Cleveland and for unloading at Parkersburg, would make a total of 50 to 60 cents a ton, whereas it costs from \$1 to \$1.18 per ton to transfer iron ore to cars at Cleveland and transport it by rail to the furnaces at Pittsburg.

Doubtless it will be some years before this nine-foot stage in the canal, the Ohio and the Little Kanawha has been secured. However, with the completion of work covered by present appropriations there will be, within the next few years—anywhere from two to four—a stage of water which will give navigation for lighter-draft boats up to 115 tons between the upper Little Kanawha and Lake Erie, and with these boats it would be possible to unload the lake ores at Parkersburg some 40 cents cheaper per ton than they can be delivered at Pittsburg, while coal from along the Little Kanawha could be cheaply unloaded at Parkersburg and even delivered at Cleveland for materially less than the present rates from the mines in the vicinity of Pittsburg.

Thus these conditions of exceedingly great economic importance are by no means "vague, far and dim." They are matters of tomorrow, almost of today. And yet I opine that they are so little understood by even iron men themselves, and certainly by the public at large, that I will venture a brief outline in the way of description.

The Ohio & Lake Erie canal, which by the irony of fate owes its inception to the activity of a number of Pittsburg iron-makers, at the head of whom was Andrew Carnegie, will use the old Ohio State canal, built about 70 years ago, and extending from Cleveland to Dresden, on the Muskingum river, a distance of 148 miles. From Zanesville to the mouth of the Muskingum, a distance of 84 miles, the Muskingum is already improved for a six-foot depth, and is operated by the government. Between Dresden and Zanesville there is a stretch of 14 miles of unimproved Muskingum river. An appropriation of \$110,000 has been made by the United States government for the construction of a new lock and dam at Zanesville, and this will carry the improved river to Dresden. The State of Ohio, by its last legislature, appropriated about \$575,000 to improve the old canal to a 40-foot width and a six-foot depth, so that improvements already provided for will give a 40-foot canal with a six-foot depth from Lake Erie to the Ohio and Parkersburg, and the work will probably be completed within two years.

But this is declared by the people of Ohio to be merely a starter. In harmony with the plan to give to the Ohio a nine-foot stage its entire length between Pittsburg and Cairo, the State of Ohio proposes to bring this great inland waterway up to a standard in keeping with the Ohio, and without any kind of equivocation, and even with enthusiastic determination it is planned to give it a width of 80 feet its entire length, and with that the Ohio river stage of nine feet. And there is not the slightest balk at the estimated cost of \$15,000,000, nor any thought of turning the canal over to the government, the State taking an avowed pride in the construction and ownership of a canal of such magnitude and importance as will permit barges to go through from the Lakes to the Gulf.

The Muskingum flows into the Ohio at Marietta, some 12 miles above Parkersburg. Three and a-half miles above Parkersburg the government is now at work on lock No. 18. It will be completed in about two years. Six and a-half miles below Parkersburg is lock No. 19. A government appropriation of \$25,000 was made some time ago for a survey and to purchase a site, and the last river and harbor bill carried an appropriation of \$100,000 to begin the work. By the operation of the continuing appropriation rule this insures the completion of the work.

The lock and dam will cost, as estimated, \$1,250,000, and it will require about four years to finish the work. These two locks will give to Parkersburg one of the best pools on the entire river.

On the Little Kanawha, which empties into the Ohio at Parkersburg, and already is navigable for 48 miles, bringing down vast quantities of timber from the heavily-wooded districts of the interior, there will be government improvements which will make the river navigable for 110 miles from Parkersburg, giving a four-foot stage for the present, and gradually working into the greater stage that the Ohio and Muskingum will ultimately have. A private company years ago built four locks and dams in the Little Kanawha, and has been charging toll on boats that ply the river. The last river and harbor bill carried an appropriation of \$75,000 for the purchase of these locks and dams, a deed has been made out, and the transaction will soon be completed, and an appropriation of \$88,000 was also made for the purpose of putting these locks and dams in better repair. The government already has constructed one lock on the Little

Kanawha, and in time will replace all the old ones, construct additional ones and give slack water to Burnsville, where the Pittsburg and Freeport veins of coal are found with a thickness of coal to seven feet. The Freeport coal makes a standard coke, and coal from the Pittsburg vein of the Little Kanawha region is declared by steamboat men to be better than the coals that come from the barges at Pittsburg. Dr. White, the State geologist, declares the Little Kanawha coals are as good as those of the Monongahela. With an ultimate deep waterway between the Little Kanawha coal fields and the Lakes, the coal from this section can be laid down in Cleveland in 500-ton barges at a cost, estimated by United States Engineer William M. Hall, of \$1.45 a ton, about one-half the present price in that region. The reports of Captain Hall and others, embodied in congressional documents, give elaborate and illuminating facts and estimates as to the benefits that may be expected to result from this improvement, and they should be read in full by anyone who wants to thoroughly understand the possibilities it contains for Parkersburg and the country beyond.

The origin of these improvements is interesting, for they all dovetail together, and the Little Kanawha and the Muskingum end of the canal work are included in the general scheme of governmental improvement of the Ohio river. Some 10 years ago, so records Captain Hall, Congress, at the instigation of Andrew Carnegie and some of his Pittsburg friends, had a board of engineers examine and report on the possibility and advisability of a seven-foot canal between the Lakes and the Ohio. A year and a-half was given to the work by a large force of surveyors, and nine routes were examined and three surveys made over the country extending from Pittsburg to the Wabash river. The route from Cleveland via Dresden to Marietta was reported as the best of all. Failing to discover a feasible canal route from the Lakes to Pittsburg, Mr. Carnegie took no further interest in the subject and built his Bessemer Railroad, and the people of Parkersburg, being apparently oblivious to the advantageous conditions which the report set forth, the whole matter dropped out of sight. The credit for reviving the enterprise and putting it on its feet is due the Business Men's League of Parkersburg, for whom Captain Hall has been not only a helper, but an inspiration. Committees from the League visited Columbus and Washington, and by the most vigorous efforts succeeded in securing favorable action on every essential point. Within a year all these important results have been achieved, and while the country is yet hardly aware of what is going on, the foundations have been laid for a development at Parkersburg which may produce results hardly short of revolutionary.

If one were not considering for Parkersburg the possibilities of a Pittsburg, with its world-beating mammoths of industrial enterprises, what is being done here today would appear creditable and full of promise. There are steel sheet mills which propose to construct blast furnaces as soon as ore can be brought by water from Lake Erie. Gas engines are manufactured here, and there are extensive planing mills, wagon works and some furniture factories. There are big oil refineries here, Standard and independent, and there are manufactories of the tools that oil drillers use. There are machine shops and boiler works, and a great variety of different industries like tile manufactories, brick works, etc. As glass sand is abundant nearby, and grinding sand is obtained from the Ohio at almost half what it costs elsewhere, and as Parkersburg has a practically unlimited supply of natural gas that is counted on for at least another generation, a start is being made in the way of glass manufacturing, and when the plant under construction is finished it is declared that no plate-glass factory in the country can present a more modern or better equipment, and having secured as manager a famous glassmaker from Pittsburg named Captain Ford, the company feels that its chances for a prosperous career and growth into first-class importance are very bright. The industrial department of the Baltimore & Ohio Railroad is aiding the cities along its line to get factories suited to the various places, and local organizations at Parkersburg are working to the same end. Parkersburg is growing. There are claims of even as many as 30,000 people, based on the directory estimates, in Parkersburg and its environs, and this is a tremendous growth in the past five years. It is a well-built city, with many handsome residences, fine hotels, public and business buildings, schools, churches, libraries and clubs. There are well-paved streets, and there are parks and amusement resorts and social life. It is a pleasant place to live, and comfort seems to abound, for there is no squalid quarter in the town. Business men evidently prosper, for there are 11 banking houses here with nearly \$2,000,000 capital, almost \$5,000,000 deposits and total assets of a little less than \$8,000,000. Then there are building associations, through which thousands of homes have been acquired by wage-earners and laboring men, the prosperity of these associations being attested in the \$1,500,000 deposits which they report. A million and a-half dollars is paid out in wages every year to the 3000 workmen employed, and the estimated value of finished products turned out in Parkersburg in a year is \$6,000,000.

So a good start has been made, and even without much effort it would appear that a notable industrial development must ensue.

On the main line of the Baltimore & Ohio, Parkersburg is also served by the Ohio River division of that line, which goes to Wheeling on the north and crosses the Chesapeake & Ohio and the Norfolk & Western on the south. Besides the various lines of the Baltimore & Ohio, which radiate in many directions, there is much expected of the Little Kanawha road when its affairs are finally disentangled and it falls into the hands of either Gould or the Vanderbilts and is built to Durbin or to Belington, in either case making tributary to Parkersburg a very wealthy territory of timber and of coal.

But it is more than something "pretty good" that Parkersburg is after. It is to get somewhere "in the running" with a city of some 300,000 souls—maybe 600,000 in all the country roundabout—which has \$200,000,000 invested in industries and turns out products worth \$450,000,000 every year, and where are banks in one of which there are deposits amounting to \$25,000,000, and in another \$20,000,000 and more. It seems a far cry from Parkersburg to Pittsburg, looked at in this light, but with all the gas that may be called for at eight cents a thousand to the manufacturer; with coal at \$1.65 a ton today, and certain to be much less when the Little Kanawha improvements are done; with oil and timber in abundance close at hand; with railroad transportation of the first class and railroad transportation rates identical with Pittsburg, and on top of all that, with water transportation superior to that possessed by any city where fuel is equally cheap, who can blame the observant citizen of Parkersburg for speaking of his town in superlative terms? Given the kind of men here who built Pittsburg, and I believe Parkersburg would show a greater degree of progress in the next 25 years than Pittsburg has shown in the past 25, enormous as that has been. Everything depends on the "man behind the gun."

ALBERT PHENIX.

PROSPERITY OUTLOOK OF RAILROAD EXECUTIVES.

In view of magnificent crop prospects of the country, the freedom of farmers of all sections from debt, the great activity in iron and steel and the possibilities for this country in Asiatic trade, the MANUFACTURERS' RECORD wired this week to the presidents and other executive officers of great railroad systems of the United States asking them to telegraph their opinion about present industrial and business conditions and the outlook for the future. In reply we have received telegrams representing many sections of the country, especially those in which railroad activities are closely identified with agricultural and industrial movements upon which the prosperity of the country rests. The telegrams, which make a most gratifying exhibit, follow:

Vice-President J. T. Harahan, Illinois Central Railroad.

[Special Dispatch to Manufacturers' Record.]
Chicago, Ill., September 12.

Throughout the entire Mississippi valley, with its almost unequalled diversity of agricultural production, crop prospects are favorable. An enormous corn crop, which, with another week of suitable weather, will be safe from any possibility of damage by frost, is reported in all sections of Iowa and Illinois. The recent small grain harvest in these States has been extremely satisfactory in yield and quality. The tobacco crop of Kentucky is in excellent condition, and the prospective yield is 10 to 15 per cent. in excess of last year.

Cotton in the States farther south, while retarded in the early part of the season through inability to properly cultivate, due to wet weather, has to a great extent overcome this disadvantage, and at least 85 per cent. to 90 per cent. of an average crop is predicted.

The cane and rice crops of Louisiana are highly satisfactory, an immense tonnage of the former being anticipated. The substantial market prices for these commodities and the favorable conditions generally have combined to produce a marked degree of prosperity so far as the agricultural classes in all parts of the country are concerned. A situation of industrial activity prevails in the manufacturing centers, which is likely to be intensified by the increased foreign demand for American goods, due to the ending of the Russo-Japanese war and the removal by the Russian nation of discriminatory tariffs, more particularly on locomotives, boilers and agricultural machinery. Local trade is just now affected to some extent in Louisiana and Southern Mississippi, due to the prevailing fear of yellow fever, but the government officials have that situation well in hand, and the advent of frost will immediately restore normal conditions. As stated, this has only local effect, and will be offset to a large extent because a great deal of traffic not moving now will have to move later, and will thus adjust the usual volume of traffic for a given period.

A very favorable condition at this time is the peaceful situation which exists with the laboring classes. The intellectual progress of the more conservative labor organizations has brought about a feeling of greater security on the part of manufacturing and transportation interests as to the likelihood of compliance by labor with its agreements, and the few disturbances which have occurred recently have not been serious or lasting in their general effect.

With the satisfactory conditions which exist as to supply and demand for agricultural products and the prevailing values of same, with a steady demand for both

skilled and unskilled labor at good wages, with the requirements for manufactured products necessitating mills working overtime, and with the pulse of trade beating steadily and in a healthy manner, I consider the outlook as a whole extremely bright for a continuance of the present satisfactory business conditions.

J. T. HARAHAN.

Vice-President W. W. Finley, Southern Railway.

[Special Dispatch to Manufacturers' Record.]
Washington, D. C., September 11.

Industrial activity continues throughout the South, and the present business outlook is most favorable. There are now at work more agencies for the material advancement of that section than ever before. The people are taking hold vigorously and organizing along practical lines for industrial upbuilding, and the result of this is manifested in the various branches of manufacture and trade. Capital is diligently feeling the opportunity for investment in our territory, being convinced that the foundations are laid for a solid and substantial business growth, which will tend to permanent prosperity. The diversification of manufactures is increasing rapidly. The raw materials now find their way in greater volume than formerly to local factories and mills to be turned out as finished goods, both for home consumption and transshipment. All this indicates healthy business conditions and augurs well for the future. The farmer, too, is prosperous. He finds a ready market at good prices for all he can produce. These conditions are drawing the attention of many tillers of the soil from other portions of the United States to the South for investigation and settlement. This is most fortunate, for at the present time the South is in greater need of rural population than of any other element. There can be no doubt that the interest of all classes, including the manufacturer, as well as the settler himself, lies in the direction of increasing the rural population and enlarging the utilization of farm areas, because it is no less true of the South than of any other section of the country that the farm must continue to be the main reliance for the supply of efficient labor in the city as well as in the country, and that the mutual interests of town and country lie in the strengthening of this source of supply. The South is destined to become thickly populated. Its marked tendency to curtail the size of its farms, while at the same time extending the total of its improved farm area; the distinctive character of its urban growth, taking the form of a multitude of thriving cities rather than the creation of a few very large and dominating industrial and trade centers, and finally, and more important than all else, the peculiarly equitable distribution of great natural resources throughout a vast extent of country, these and other considerations all point to the South as the coming populous section of the country, capable by reason of its diversity of economically multiplying employments and profitable avocations to a greater extent than is possible than in any other section.

W. W. FINLEY.

Vice-President Decatur Axtell, Chesapeake & Ohio Railway.

[Special Dispatch to Manufacturers' Record.]
Richmond, Va., September 12.

Business conditions have rarely been more promising than they are at this time. This seems to be felt very generally, and the usual activity prevalent is probably largely due to this feeling. Efforts, as a rule, appear to be well directed, and we have reason to confidently expect a decided increase in prosperity in all branches

of business. It is to be hoped that this prospect will not be disturbed by restrictive legislation.

DECATUR AXTELL.

President J. Ramsey, Jr., Wabash Railroad.

[Special Dispatch to Manufacturers' Record.]
New York, September 11.

Having just returned from abroad, I cannot say much in reply to your message from my personal observation of present crops and industrial conditions. From all reports, governmental, railroad and individual, it is certain that crops of all kinds will show record-breaking figures. Industrial conditions at home seem to be excellent, and promise to continue so for some time to come, as all branches seem to be full of orders. Engines, cars, rails and all sorts of railroad supplies will be required in large quantities to take care of traffic and increased safety in operation. Abroad the friendly feeling for Americans and American methods and machinery is growing rapidly, and will result in increasing the markets for American manufactures and developments in other countries by American men and money. I look for great growth in our prosperity.

J. RAMSEY, JR.

President Eugene Zimmerman, Cincinnati, Hamilton & Dayton (Great Central Route.)

[Special Dispatch to Manufacturers' Record.]
Cincinnati, Ohio, September 13.

In my judgment, the business outlook never was better. This opinion is based upon a conservative survey of all the conditions upon which prosperity rests, viz.: Crops of quality and quantity, extensive markets, activity of mills and furnaces and spindles, domestic tranquillity and peace throughout the world, favoring the greatest production of the earth's resources and the highest development in all the parts of trade. It is an established fact that the gross earnings of its railroads indicate the general prosperity of the United States and the activity of its varied industries. Reliable estimates of the gross earnings of the entire railway mileage of the country for the first six months of this year show the tremendous gain over the previous six months of \$70,000,000. The great growth and expansion revealed by this splendid showing reflects not only the marvelous extension and development of the common carriers of the country, but the equally notable industrial prosperity.

Never before has the manufacture of iron and steel been as great as in the first half of 1905. So extraordinary has been the demand for its products that the United States Steel Corporation has withdrawn from the market for the rest of the year 1905, after ordering every furnace controlled by it in blast. This fact is cited to demonstrate emphatically the prosperity of the railroads, which are the largest consumers of iron and steel in this country, and whose tremendous orders for steel rails and new locomotives and cars have stimulated this gratifying situation in the iron and steel industry today. While the products of mine and mill supply a large tonnage for the railways, their chief dependence must necessarily be upon the bounty of the soil.

The bureau of statistics of the Department of Agriculture in its August report promises rich and plentiful harvests this season, the yield of corn being the largest on record, oats the best ever made, winter wheat above last year with prospects of spring wheat still larger, and a large cotton crop. If the first six months of the current year have wrought such magnificent results in spite of disturbed trade relations caused by the greatest war in the history of nations, is it not more than prophecy to believe that what with peace restored and normal conditions of Oriental trade re-established with ever-widening

foreign markets, especially in Asia under the aegis of the open-door policy of the present wise administration, with all agricultural records broken by the present bountiful harvests, we shall have attained in the remaining months of the calendar year the greatest period of prosperity in our commercial annals?

E. ZIMMERMAN.

President J. M. Barr, Seaboard Air Line Railway.

[Special Dispatch to Manufacturers' Record.]
Portsmouth, Va., September 12.

The business conditions throughout the territory traversed by the Seaboard are exceptionally good. The saw-mills and cotton manufacturers are all working to their full capacity, and prospects are fair for a continuance of these conditions for an indefinite period. The crops along our line have been above the average, and the farmers have received exceptionally good prices for their products, all of which will tend to stimulate the general merchandise business throughout the South. Taking the situation as a whole, it is most encouraging. The industrial development is all that could be desired, and business prospects in all branches are most flattering, and unless something unforeseen happens it is my belief that the next 12 months will be a record-breaking period in the South.

J. M. BARR.

President Henry G. Davis, Coal & Coke Railway.

[Special Dispatch to Manufacturers' Record.]
Elkins, W. Va., September 12.

Responding to your suggestion for an expression of opinion regarding business prospects, the indications seem very favorable. Traffic is large and increasing in all lines of commerce, and more time is required in filling orders, particularly in the iron and steel trade. We are just completing the Coal & Coke Railway of about 200 miles through the center of West Virginia, and the prospects are excellent for the rapid development of the country along the line, especially in its coal and timber resources. The industrial and commercial conditions of the whole country for the near future appear bright, and nowhere more so than in West Virginia.

HENRY G. DAVIS.

President J. A. Edson, Kansas City Southern Railway.

[Special Dispatch to Manufacturers' Record.]
Kansas City, Mo., September 12.

It would require some unprecedented commercial disaster to impair seriously within one or two years' time the present wealth and business confidence, which is the result of good crops during past eight years. This condition, supplemented by magnificent crops now to be gathered, guarantees continuance of present prosperity for at least four or five years to come. In the meantime the peace of Asia, the awakening of China, the emancipation of Japan from fear of Russia and the prospective completion of the Panama canal cannot fail to have a most powerful and beneficial effect upon the commerce of the United States. It would seem, therefore, unreasonable to assume that the commercial prosperity of the United States during next 10 years will not far exceed that of decade just passed.

J. A. EDSON.

President A. E. Stillwell, Kansas City, Mexico & Orient Railway.

[Special Dispatch to Manufacturers' Record.]
Kansas City, Mo., September 12.

I have never seen the West as prosperous as it is now. From the different wholesale merchants of Kansas City I understand that their trade has never been anywhere near as good as it has been this year. I believe that Kansas, Nebraska, Missouri and Iowa will receive more for their crops this year than they have ever before received. Little banks all over the West are very strong in money; in fact,

in some of the smaller towns the banks are having difficulty in loaning their money. The territory of Oklahoma is wonderfully prosperous. The banks along the line of the Orient road, some of them only a year old, have 50 per cent. reserve and quite large deposits. The territory in Texas along the line of our road has never had such abundant crops, and land has doubled in value during the last 12 months. Mexico is enjoying great prosperity. In Mexico the territory served by the Orient road has had the best crops ever known. Mexican 5 per cent. silver bonds have been advanced in a year from 88 to 105. I believe that the large production of gold in the world is going to aid greatly in advancing the price of silver, which will bring still greater prosperity to the Republic of Mexico. A. E. STILWELL.

President H. L. Winchell, Rock Island System.

[Special Dispatch to Manufacturers' Record.]
Chicago, Ill., September 12.

The situation is so clear that 500 words are not required to cover same. With our large corn crop, good yield of wheat and oats, fair yield of cotton, price considered, and splendid crop of hay, we are all assured of some 12 or 15 months of good business. When the Southwest has had a few more such years many miles of now new and comparatively unproductive railroad will begin to yield fair returns to the owners, justifying the foresight and enterprise of the latter. B. L. WINCHELL.

Vice-President F. A. Delano, Wabash Railroad.

[Special Dispatch to Manufacturers' Record.]
Chicago, Ill., September 12.

Crop prospects in all parts of the Wabash territory are excellent without exception, and our facilities will be taxed to the utmost this fall. F. A. DELANO.

Fertilizer Plant.

Messrs. A. Cary, J. M. Barnard, J. E. Dunson, Frank L. Hudson, W. A. Reeves, T. J. Thornton, J. H. Edmondson, Albert S. Dunson, Frank Word, M. H. Hightower, R. W. Trimble, C. W. Smith, L. S. Turner and S. P. Smith of Troup county, A. E. Thornton and W. A. Speer of Fulton county, and N. O. Barks and T. M. Zellers of Coweta county will incorporate the Troup Company, with a capital stock of \$150,000, for the purpose of establishing a fertilizer plant at Lagrange, Ga. It is announced that the company will build acid chambers and a fertilizer plant to have a minimum annual capacity of from 12,000 to 15,000. It purposes also to erect or operate a cottonseed-oil mill at Lagrange and other points, beside owning or operating under lease warehouses so equipped as to command the lowest rate of insurance and to offer cheap facilities for handling cotton, fertilizers, etc.

To Build Gas Motors.

Permanent organization has been effected by the Hicks Gas Motor Co. of Waycross, Ga., which incorporated some weeks ago with a capital stock of \$250,000. This company will erect a 50x100-foot building and install modern machinery and tools for the manufacture of a new stationary and marine gasoline engine, motors, etc., in accordance with the inventions and patents of J. B. Hicks, who will be general manager of the company. The plant is expected to be in operation within 60 days. George W. Dean is president; W. A. Price, vice-president, and H. H. Burnett, secretary-treasurer.

The board of port commissioners of New Orleans is preparing to let contracts for the construction of eight new wharves at a cost of \$500,000.

SIGNAL PROSPERITY OF NORTH CAROLINA.

[Special Correspondence Manufacturers' Record.]

Salisbury, N. C., September 9.

All North Carolina is enjoying prosperity without a precedent. This truth he who runs may read. Take any city, town or village you may land in, and the evidences of this fact seen there by yourself will receive confirmation from anyone with whom you talk regarding every other section of the State. If you travel in the State during the daytime, what of universal development you have seen will prepare you for the unvarying tales of progress you will hear as to conditions in every place. Not only does this apply to the always active region called the Piedmont section, but exceptions can hardly be made in the case of any part of the State, and no matter where you go, all the way "from Currituck to Cherokee," you will find town building, water-power development, industrial expansion and railroad improvement on a scale greater than the State has ever known, and comparable with the greatest activity seen anywhere in the land today.

To indulge in a parenthetical reflection, the conditions I find in North Carolina act as a crystallization of accumulating convictions that the whole country, and especially the entire South, is enjoying a season of prosperity and development unequalled heretofore. Wherever I have been during the past year—and my itinerary reached from Maine to Mexico—there has been not one weak spot encountered. Regular boom towns are being built in the woods in Maine. All New England is growing in population, in capital invested in manufacturing, in number of factories, in value of output and in the wealth of the individual, as witness an increase in savings deposits in New England of \$36,000,000 in one year. New York city is growing so fast that not only are those of us who have known it for a generation bewildered by the changes, but the annual visitor of today finds a growth so great as to amaze him by its extent. The industrial centers of New Jersey and of Pennsylvania and the cities and towns of Delaware and Maryland are all witnessing an extraordinary expansion in population and in industrial development, while in the less developed States of the South and Southwest the progress is so great that no man has anywhere near kept up with it. Even to those whose occupation and sympathies impose a fair degree of familiarity with the progress of this region, the complexity, variety and extent of the developments under way are so great as to baffle any attempt at a complete understanding of them. After any sort of an absence the changes found to have occurred are surprising, and the forces now at work are so varied and extensive that even over night some important project may be inaugurated. West Virginia is a veritable storm-center of activity just now; old Virginia has its spots of remarkable development; Kentucky is on the eve of a great industrial awakening; Indian Territory, Oklahoma, Arkansas and Texas are making giant strides in progress, and not a State in the entire South can be named wherein there has not been seen and cannot be found right now a development of the most notable sort. New conditions, greater universal wealth, a vast expansion of civilization and a constant and enormous increase in the population of the United States make new industries and enlarged capacities of production an absolute necessity, with the result that every section having abundant fuel, supplies of raw materials, accessible and reasonable transportation or manufacturing facilities—any or all of them—is bound by opportunity for the most vigorous en-

the laws of commerce to find a profitable endeavor. Thus, without any abandonment of localities where great skill and training have established important industries in the North, the very exigencies of the times are bringing about a fulfillment of the prophecies proclaimed unceasingly by the MANUFACTURERS' RECORD throughout a quarter of a century, and the resources of the South—its coal and iron and timber, its oil and gas and many kinds of minerals, and its cotton—are engaging the attention of capitalists, local and from the outside, in a manner hitherto unknown, and are receiving a development of the broadest and most pervading character.

So what I see and hear described now is not peculiar to North Carolina, although it is due an energetic people to say that hardly anywhere in the South is there to be found more widespread activity or a State in the development of which the people native to the place are bearing a more conspicuous part. What I found and reported at High Point some months ago, where all the initiative and the greater part of the money for the creation of a distinctly manufacturing center are of local origin, applies to North Carolina generally, although in several conspicuous instances large resources and important influences from the outside have been enlisted in the support of enterprises conceived and originated by local men. Thus the great water-power development at Whitney, together with the gold mine and stone quarry operations of the same company, would doubtless never have been taken hold of by the Pittsburgh capitalists who are backing the enterprise had it not been for the 20 years' activity of the man on the ground, the thorough knowledge of conditions, the faith and the earlier operations of Mr. E. B. C. Hambley.

The same facts apply in a notable degree to developments at the town of Spray, a manufacturing city in Rockingham county, North Carolina, of which I confess I had hardly even heard previous to this trip. Here within 10 years' time there has been built up, almost solely on the initiative of a young North Carolinian, named B. Frank Mebane, a city of 5000 population, having nine cotton and woolen mills and the biggest finishing mill in the South, representing an investment of somewhere between \$5,000,000 and \$10,000,000, where before was simply a country village of some 200 souls. This is one of the places I count on visiting when I make my next trip to this State, for from what I hear of it there can hardly be a more interesting development anywhere than is to be seen there. Spray is not on the main traveled road, being some 25 miles southwest of Danville, Va., on the Danville & Western Railroad, but the vigorous "go" of Mr. Mebane has sufficed to attract the largest capitalists to the place, while the larger part of the capital employed has been supplied by North Carolina people, yet such notable outsiders as the Drapers and the Studebakers are interested. The name of German-American Company, borne by one of the latest mills, indicates the source of some of its capital, while still further and quite important international significance attaches to the announcement Mr. Mebane made on leaving Portsmouth, N. H., a short time ago, that the American-Japanese Company, for spinning and weaving, had been organized with \$1,000,000 capital. Water-power has been developed here from the Smith and Dan rivers, and while there are several places in the State where a greater development of water-power than is possible here has been or will be made, yet in utilization, in practical re-

sults and applied form, this must be regarded as one of North Carolina's notable water-power developments.

Comment has frequently been made on the plans of the Catawba Water-Power Development Co., which announces its intention of developing 110,000 horse-power at various points on the Catawba river. If its calculations are correct, this would be greatly in excess of the Whitney development on the Yadkin, where a total of 76,000 is proposed, and would constitute the Catawba as one of the greatest developments in the world.

A list of other water-power developments in the State must include the early one of the Roanoke at Weldon, and that of the French Broad at Asheville. It has been many years since I visited Weldon, and what has been accomplished there I do not know. That all Eastern Carolina is developing, however, the reports show, and no doubt I will find interesting conditions at Weldon when I am able to visit it. The W. T. Weaver Company's development at Asheville is of recent completion, but with the industrial activity that marks all portions of the State it would seem that it should in time attract to it a number of important industries in addition to present utilization of the power. Among other contemplated water-power developments in the State is one of 20,000 to 30,000 horse-power on the Great Pee Dee near Rockingham, N. C., and one of 4000 horse-power on the Yadkin near Winston-Salem.

Since coming here I have heard interesting stories about railroad development, one of the most important of which is in connection with the plans of the Holland Improvement Co., which last year leased from the State for 92 years its road known as the Atlantic & North Carolina, in operation between Goldsboro and Morehead City. It is said here that associated in this enterprise with President R. S. Howland, a former Rhode Island man, now living in Asheville, is Senator N. W. Aldrich of Rhode Island. F. S. Gannon, formerly of the Southern, is now president of the road, and R. C. Foster is general manager. The company proposes to develop an important seaport at Beaufort, and is planning to construct a bridge from Morehead City across the sound to Beaufort. The company has found that there are four islands in Beaufort harbor, containing 400 acres, that have never been taken up. Officers of the company are taking steps to make entry of them, on determination as to whether they belong to the State or to the State Board of Education, and as some of them face on deep waters and are fine sites for warehouses and factories, they will be well adapted to the plans of the railroad company, which proposes to foster industrial development wherever possible. It is stated that since the company has had charge of the road 27 new enterprises have been established along the line. I have not met any of the officers of the company, and have no information as to the ultimate plans of the company. As is well known, Senator Aldrich is the father-in-law of John D. Rockefeller, Jr. If I am correctly informed as to his interests in the enterprise, and the company does create one of the big seaports of the country at its terminus, there might be justification for speculation as to what part this road may be destined to play in the plans and purposes of some of the important trunk lines which have avowed intentions of reaching the Atlantic seaboard.

Out in Western Carolina the greatest activity on the line of the South & Western road is announced. Contracts have been let and 1000 or more men are at work grading the line between Spruce Pine and the crossing of the Southern road, somewhere between Marion and Old Fort, and

a large engineering corps is at work locating the line from there to Spartanburg. They are expected to be done in October, when contracts for that part of the work will be let. It is stated in North Carolina newspapers that neither Marion nor Rutherfordton will be touched by the road, which is to be built as a coal carrier, with no greater grade than 26 feet to the mile, and is to be constructed without special reference to local business and local towns. As interests identified with the Seaboard Air Line are the present owners of the South & Western, it is believed the Seaboard Air Line will extend its Western Carolina branch from Rutherfordton to a junction with the South & Western at some point west of Rutherfordton, and ultimately may go on to Asheville. Charleston, S. C., is given as the final destination of the road.

I am not informed as to the present status of the Southbound road, planned to be built from Winston-Salem to Wadesboro, but as this 90-mile road would connect with all the present large railroad systems in the State, it looks as though its construction were merely a matter of time, unless there should be formidable opposition on the part of the other companies. On the other hand, work has begun on the electric railroad to run between Winston-Salem and High Point.

Recent publication has been made of the sale of the Suffolk & Carolina, a lumber road running from Suffolk to Edenton and Elizabeth City, N. C. The New York purchasers have in mind the connecting up of numerous smaller lines and the consolidation into one management of various timber tracts and lumber mills in which the purchasers of the road have interests, which will give the enterprise a standing as one of the most important of its kind in the country. It is declared that the extensive plans for the development of this property mean the investment of something like \$5,000,000.

From all over North Carolina come reports of village and city growth and activity. Charlotte has become a manufacturing center of 35,000 to 40,000 population. Greensboro is full of industrial life, and all between is prosperity and growth. Furniture factories, cotton mills and shops almost line the way, and in these cities are improvements of every sort. Salisbury, which was a smart village in Revolutionary times, and until a few years ago looked like it had been vegetating ever since, now has paved streets, sidewalks and an electric car line connecting it with Spencer; the people are tidying up their places, painting, repairing and rebuilding, till, with its setting of rarely majestic elms and oaks, Salisbury is becoming a notably beautiful place as well as one of generally diffused prosperity. Out on the line of the Wilkesboro branch of the Southern Railroad I hear that Winston-Salem has realized all of the ambitions she voiced in the early nineties, and through efforts begun then has become an important manufacturing center and the home of much wealth. Along the entire length of that road, up to and including Wilkesboro itself, prosperous factories are to be found and prosperity is universal.

From all the mountain region come marvelous tales of the influx of visitors this year. It is declared the transient trade of Asheville has been worth \$10,000 a day all during the summer, and all the mountain resorts have been overcrowded and every farmhouse has been taking boarders. A good deal of this travel is doubtless due to the fearfulness of dwellers near the southern coast, but it is declared that travel from the North into the mountains has been greater than that on the trains going North, and that among those who

visited the section are many who have come to invest and to remain. Mr. S. A. Jones of Waynesville reports a vast amount of outside interest in his section and in the entire "Sapphire" region, and he writes with great confidence of an industrial development he believes will come. Already there are industries at practically every station on every road in the State, western part as well as Piedmont section, and all North Carolina seems prosperous and rich.

ALBERT PHENIX.

SOUTHERN MILL MEN AND INDUSTRIAL TRAINING.

[Written for the Manufacturers' Record.]

Adapting a suggestion of Mr. John Fritz of Bethlehem, Pa., the pioneer steelmaster of the country, as to a practical means for meeting the pressing demand for trained workers in the iron and steel industry, to the cotton-mill situation in the South, the MANUFACTURERS' RECORD recently suggested that many problems of the cotton mills might be solved if they could put into operation some plan for training workers in connection with their every-day operation. Managements of cotton mills have been among the foremost in improving educational conditions in the South, and it was thought that such a plan of training to skill with its immediate practical intent might enable the mills to lead in developing a much-needed phase of education in the South. The suggestion was called to the attention of several Southern manufacturers well known for their interest in education, and in the following columns are published their illuminating and suggestive replies, written from several viewpoints, but tending to direct increased attention to this most important subject:

The Rational Education That Produces a Useful Man.

D. A. Tompkins, president and engineer the D. A. Tompkins Company, Charlotte, N. C.:

"I have read with infinite pleasure the interview which you have published of Mr. John Fritz of Bethlehem, Pa. I look upon him as the leading steelmaker in America. I am well aware that there are many younger men of great talent and deservedly growing fame in the steel business, but, in my opinion, Mr. John Fritz stands alone at the head of the profession. I recall that at a dinner given to Mr. Fritz by the engineers, perhaps a couple of years ago, Mr. Carnegie telegraphed congratulations and said of Mr. Fritz: 'In matters relating to steel he has taught us all.' Mr. Fritz's judgment has always been sound and accurate. It is very gratifying to hear him predict so large and successful a future for the steel trade of this country. With me, his opinion carries conviction.

"I am particularly pleased with his reflections upon the subject of education. I heartily concur with his view that some of the schools are not only doing the youth of the country no good, but actual harm. In some of the schools the idea is allowed to grow that college training qualifies a man to make a living without work, and at the expense of some other fellow who is working. Nothing could do a young man more harm than to allow this sentiment to grow in his mind. Nothing is more injurious to the Commonwealth at large than to turn loose a young fellow with a diploma with the idea that his education qualifies him to take short turns and escape labor. It gives a totally erroneous idea of labor. Whoever labors in a wholesome way increases the strength of both body and mind, and the education which we most need is one which is a combination of physical training with scholastic teaching, and one which particularly repudiates the theory that scholastic training is meant to qualify a man to escape any honest work which comes his way or to make a living by taking short turns.

"The article has been exceedingly interesting, and is a valuable publication. I am sure that there is no one who favors

trial development he believes will come. Already there are industries at practically every station on every road in the State, western part as well as Piedmont section, and all North Carolina seems prosperous and rich.

ALBERT PHENIX.

stronger than Mr. Fritz does that rational sort of education which produces a useful man. His views should not be taken as being in the slightest degree against education, but only against misapplication and the misuse of scholastic teaching and the omission of proper practical training."

Every Southern Cotton Mill Engaged in Industrial Education.

John A. Law, president and treasurer Saxon Mills, Spartanburg, S. C.:

"Every Southern cotton mill is directly engaged in manual training, or industrial education, as you may call it. In view of present scarcity of labor and the consequent increasing tendency to pay full prices for that which is incompetent, the amount which cotton mills are actually expending in this way would be most interesting, possibly alarming, if it could be definitely ascertained and compiled.

"There are constantly on our pay-rolls whole families of 'green help,' fresh from the farms, obtaining their first experiences in tending to the frame or loom. In every weaverroom are young adults ambitious to rise beyond the spinning-room to the supposed higher grade of weaving.

"The unfortunate phase of the present situation is that the deplorable competition between the mills as regards labor and the migratory tendency greatly increased and fostered thereby is rendering much less effective and thorough the education which the mills are thus almost gratuitously giving. With delight inexpressible would the present-day section hand or overseer welcome the Utopian condition, when operatives were admitted to the mill only after they had completed a certain manual course, equipping them, even in a measure, for the duties which they were to perform. As it now is, his conscientious efforts to train and educate seem unappreciated, and from his own viewpoint useless, as he notes that almost before they are rendered efficient they insist upon advancement to another department, involving another training, or, as is more frequently the case, 'get a better job at another mill,' which has grown to mean a position for which they have had no training and are hence unfitted.

"The textile department of Clemson College sometime since, in their commendable efforts to establish even closer relations between their institution and the various cotton-manufacturing industries in this section, suggested the advisability of scholarships being established by the mills, to be awarded to the young men in their employ who showed greatest efficiency and at the same time evinced a desire to better educate and equip themselves for their work.

"While under existing conditions this would doubtless mean that the mills who were liberal enough to make such an expenditure would merely make out of their section men overseers for some other mill, possibly smaller in size, and out of their overseers superintendents for a neighboring plant, yet great and lasting benefit to the business at large would probably be accomplished by the adoption of this plan.

"It must be admitted, however, that far too few of the young men and women now employed by the cotton mills and making wages which compare most favorably with those of clerks, stenographers and teachers have sufficient school education to en-

able them to derive anything like the full benefit of even an advanced technical or mechanical course.

"Hence the time, far too limited, now 'devoted to the study of books' is, in my judgment, imperative, not only in order that this small taste of learning may whet the appetite for more, but because a basis of this character is necessary as a foundation to a more extended structure, even though it be of a mechanical nature or along broad and progressive lines.

"In opposition to your intimated views that time is wasted in 'training the child to work under the impression that it is playing,' let me add that whether it be day nursery, kindergarten, sewing society or mere organized playground—anything which takes the child out of the streets of the ordinary mill village and places it, even for a short time daily, in the hands of one whose effort is to instill a desire for education—is of value.

"The greatest obstacle encountered by those interested in such work, and the most disheartening one, is the indifference, the utter lack of desire for education, passed down from ignorant parent to child. Necessity is forcing the cotton mills to give the manual training, superficial though it may be, but the extent to which this can be carried is limited by the lack of a common school education."

Practical Opportunities Offered by Rapid Southern Development.

F. B. Gordon, president Georgia Industrial Association, Columbus, Ga.:

"I have read with keen interest the suggestions of Mr. John Fritz of Bethlehem, Pa., in last week's issue of the MANUFACTURERS' RECORD, looking to the practical training of Southern youth, also your editorial comment on same. I thank you sincerely for an opportunity of expressing briefly some thoughts along the same line, especially as applied to the textile industry.

"It is a well-known fact that the owners, and managers of Southern cotton mills are compelled in many cases to look to New England for a supply of practically-trained men to fill the places of superintendents and overseers, owing to the woeful lack of native-born men of the necessary ability and experience. While these positions pay good salaries in comparison with other lines of work, the tendency of Southern boys has been to take up the professions, or lines of clerical work, which have been regarded through a somewhat false standard of social position more desirable for boys of gentle rearing.

"Fortunately, this tendency is yielding to the broader and more practical opportunities offered by the rapid industrial development of the South, and now quite a number of young men of this section are combining a practical and technical course in textile work which will splendidly equip them to become practical manufacturers of cotton fabrics. The various institutes of technology throughout the Southern States are doing a great work to this end, and abundant aid and encouragement should be extended to them.

"To my mind, however, the introduction of industrial training in the public schools of the South is the foundation of all effort in this direction. The great importance and necessity of this department in all schools is not that we would expect to make artisans or practical manufacturers out of all the material passing through these school shops, but that under proper instructors the 'bent' of the boy is quickly discovered, and if he is handy with tools or shows a mechanical turn he can be assisted along a line of work which will not only become a congenial life vocation, but in nearly all cases a profitable and successful one.

"Thousands of boys yearly accept their

first employment with no intelligent idea in their own minds and with scant advice from parents or teachers as to what line of work they are best fitted for. A man who might have been a good mechanical or electrical engineer becomes a poor lawyer or an inferior preacher. Again, some bright young fellow who could have made a reputation as a railroad, cotton-mill or iron-mine manager spends his life as a 'machine' in a bank.

"Hence the work with the hands as well as with the mind, as afforded by a good system of manual training, will quickly sift out from the others the boys with a practical turn, and from them we want to get our material to take the responsible positions which will crowd the great industrial future of the South.

"Let young men of literary or artistic temperament seek congenial lines of life employment. Find out the embryo doctors and lawyers and let them embrace those professions; but, above all, let the teachers and parents of Southern boys discover and encourage every lad of a practical mind, not with the idea that he may some day be the President of the United States, but that he may be a 'captain of industry' in his own beloved South.

"There is no doubt that the admirable suggestion of Mr. Fritz as to the iron industry, 'to establish a large iron plant, and in connection therewith establish a first-class school,' would be a great advantage to the cotton manufacturers in the development of necessary skilled overseers and foremen if the same principle should be applied to our industry and a first-class cotton mill built and operated in connection with a school for this purpose only. While such a mill would not perhaps be a money-maker, I believe it could be made self-sustaining. It would, of course, have to commence with the ordinary force of operatives, but gradually its entire force of hands could be made up of textile students who would work for little or no pay for two-thirds of the usual mill time, using the balance of the day for school work in connection with the problems of spinning and weaving. While the institutes of technology have their textile departments, they cannot well create the atmosphere or sustain the discipline of real mill life. Such a mill as suggested should have its own village, and in every way maintain the usual conditions and customs of a first-class mill plant.

"The State of Georgia could make no better investment than to establish a 'school-plant' of this sort. A mill of moderate size would be first erected (so constructed as to be enlarged when necessary) with the idea of giving employment and instruction first to such worthy young men as would agree to a three-year course, and other help to be employed if necessary to keep the mill on a self-sustaining basis.

"Here could be learned all that goes to equip the up-to-date cotton-mill manager:

"A thorough knowledge of cotton in the staple, its grades, the methods of handling and buying.

"The principles of steam and electric power.

"A course in the machine shop.

"A complete apprenticeship in the various processes of manufacturing cotton into cloth.

"The practical work to be supplemented by and correlative with a course of commercial training in mill and office accounting, and the principles of merchandising as applied to the sale of cotton goods, both to the domestic and export trade.

"Thus every county in Georgia could train some of its own young men to successfully manage a local cotton mill and keep at home the profit which now goes to other States in the manufacture of its principal staple crop.

"Georgia is today spinning less of her own crop than any other Southern cotton-manufacturing State, and this fact alone seems to fully warrant any movement looking to the education of her young men for this important industry.

"Based on last year's crop, let us for a moment see why this is so. At eight cents a pound, the 500,000 bales of Georgia cotton spun last year by Georgia cotton mills represents a valuation of \$20,000,000. Spun into yarn and cloth at the conservative per pound value of 20 cents, it represents a valuation of \$50,000,000, an increased valuation of \$30,000,000 over that of the raw staple. Thus, if Georgia spun all of the cotton she produces, an increased valuation of her 2,000,000-bale crop would conservatively be represented by \$120,000,000, and, allowing from this amount for expenditures outside of the State, for freights, selling costs and other charges, there would still remain to the good \$100,000,000 to add to the cash of Georgia, and that annually, instead of the \$25,000,000 represented by our present stage of development in cotton manufacturing.

"Money is plentiful in the South, and capital is always eager for a safe investment, but trained practical men to successfully create dividends are scarce, and it is in this direction that the attention of the leaders in Georgia's development should be engaged."

Consideration of Practical Difficulties

C. L. Peirce, secretary Eagle & Phenix Mills, Columbus, Ga.:

"Replying to your request of the 31st ultimo, calling for my impressions regarding your suggestion relative to an application to Southern textile mills of Mr. Fritz's idea, as outlined in your issue of August 31, of a combined school and workshop education for the sons of employees, beg to say:

"The ideal is seldom attained, and to approach it we must find a benefactor, either individual or corporate, with whom the idea attains the proportion of a life-work, sometimes inappropriately called a 'hobby.' To successfully put into practical working such a system of combined book and workshop education the time must be ripe and the environment favorable. This condition does not, I fear, exist in the Southern textile district.

"In Georgia the textile manufacturers agree not to employ children under 12 years of age, except under certain conditions, greatly narrowing the possible number to be reached. Without the hearty co-operation of the families employed few of the children would avail themselves of the opportunities offered.

"To attempt to employ only men who would agree to the educational plan for their children would close down the cotton factories, as the experienced mill operative in this section is too scarce a quantity to admit of the application of any coercion. Hence a corporation could not compel the heads of families to place their children in the proposed school.

"To inaugurate such a school as suggested would entail a considerable expenditure, and unless prosecuted for an extended period would bear but limited fruit. The head of a corporation like the Eagle & Phenix Mills might launch such an enterprise and his successor in office disapprove of and discontinue the work. This is only a contingency, but calls forth the fact that a life-work is more applicable to an individual, and such an ideal as has appeared to Mr. Fritz could hardly be realized by a corporation in the present state of conditions as they exist among us.

"In a community like Bethlehem there would be plenty of material to work on, as the iron and steel workers are a much more settled class than the Southern textile operatives. Our people come largely

from the country, often driven to town by the low price of cotton, our staple money crop, and when the year following cotton sells for from 10 to 12 cents, the same families go back to the farm. Our people are constantly changing. Out of a force in our mills of 1800, not more than 50 per cent. are permanent help. To make up the other half of a full quota we are forced to hire about 4000 new people annually.

"There can be no denial of the very patent fact that we need more trained help, but the average wage of a cotton-mill operative is hardly incentive enough to induce many of the better class of working people to make that work the goal of their ambition. This fact does not so largely figure in the plan suggested when applied to the steel and iron workers, as their wages are much higher.

"Except where a mill is isolated, few manufacturing establishments would care to educate a force of skilled operatives only to have them sought out and hired by less philanthropic competitors.

"We believe, however, that it works to the interest of a manufactory to have its overseers and second hands sought for by other concerns, thus giving the capable ones beneath them a chance to advance, keeping alive ambition and hope of promotion, the inspiring genius of the working-man.

"The Eagle & Phenix Mills, the officials and directorate, are all in sympathy with every educational movement, and perhaps no corporation in the South has done more for its operatives in this direc-

tion, as evidenced by the Eagle & Phenix Club, the pioneer movement of its kind in the South, and our finely equipped kindergarten schools, in the maintenance of which no expense has been spared.

"It is not our purpose to discourage the application of Mr. Fritz's ideal to Southern textile mills, but, on the contrary, we wish all success to the individual or corporation upon whom the inspiration to give the plan a trial may fall."

Good Openings at High Wages for Competent Men.

T. I. Hickman, president and treasurer Graniteville Manufacturing Co., Augusta, Ga.:

"I have read with much interest in this week's issue of the MANUFACTURERS' RECORD the suggestion of Mr. Fritz in reference to educating boys in mechanical work, and I commend his plan most heartily. Some of our technological schools, particularly in Georgia, are teaching the boys along the lines laid down by Mr. Fritz, but as a matter of fact, in my judgment, they do not get enough of the actual experience while going to school.

"The Southern cotton mills can use all the skilled labor that they can obtain, both in mechanical and textile work, and there is today any quantity of good openings at high wages for competent men. I have always thought that our colleges and institutions of learning generally pay too much attention to the higher branches of study rather than to the practical side of an education."

AMERICAN COTTON CROP IN 1904-1905.*

By COL. HENRY G. HESTER.

The cotton crop of the United States for the year ending with the close of August amounts to 13,565,885 bales, showing an increase of 3,554,511 over that of 1903-1904, of 2,838,326 over that of 1902-1903, and of 2,885,205 over that of 1901-1902. Nineteen and ninety-two-hundredths per cent. of this large increase was in Texas and Indian Territory, 31.11 in the "Other Gulf" States and 48.97 in the Atlantic States.

Compared with last year, in round figures, Texas, including Indian Territory, has increased 708,000 bales; the group known as "Other Gulf" States, consisting of Louisiana, Arkansas, Mississippi, Tennessee, Missouri, Oklahoma, Utah and Kansas, has increased 1,106,000 bales, and the group of Atlantic States (Alabama, Georgia, Florida, North Carolina, South Carolina, Kentucky and Virginia) has gained 1,741,000.

Many and varied as are the features and conditions which attach to each and every crop grown, marking them as separate and distinct from their predecessors, the story of none is fraught with circumstances so peculiar and interesting as the one just marketed. The commercial years of 1897-98 and of 1898-99 witnessed the high-water mark of cotton culture in the United States up to that period, and with them came an era of depression, during part of which the products of the cotton field literally "sold for a song." In 1898-99 the commercial crop of 11,274,840 bales brought barely \$283,000,000. The world seemed able to absorb only a certain quantity of the staple, and beyond that it was necessary to submit to ruinous prices to induce middlemen to carry the surplus. With values below the cost of production the farmers were in no condition to protect themselves, and though they were forced to accept less for their crops than they had actually expended to produce them, absolute and immediate necessity controlled the situation. The panic that spread throughout the South on the eve of marketing the crop of 1898-99 is one that will never be forgotten. The cry of five-cent cotton had extended to the remotest districts until even the ignorant negro field hands, interested on shares, joined in the rush to market and sell cotton before the expected crash should come. How conditions were righted through the logic of events and a crop of less than 9,500,000 bales in 1899-1900 brought over \$80,000,000 more, and another crop the year succeeding of less than 10,500,000 brought nearly \$500,000,000, or exceeding \$200,000,000 better than its 11,250,000 predecessor, are matters of history merely referred to here for comparison.

It is then not to be wondered at that when in December last the United States Agricultural Department put forth an estimate of more than 12,250,000 bales that a feeling akin to panic was felt like the rumblings of an earthquake in every section of the cotton-growing States. It was expected that we should have an 11,000,000 or 11,500,000 crop, but that 12,000,000 should not only be reached but largely exceeded was beyond comprehension, and when on the heels of this the census bureau issued a statement of cotton ginned more than confirming the Agricultural Department, and subsequently justifying anticipations of over 13,000,000, it seemed for a time that we were facing a situation impossible to be coped with. Even the coolest and clearest minds seriously considered the possibility of a surplus to be carried over of from 1,500,000 to 2,000,000 bales, an amount stupendous to contemplate and even more so in comparison with the scarcity of the five years previous. The manner in which this monster crop has been handled, how it has practically all been marketed, avoiding a crash which seemed at first inevitable, will remain as a lasting monument to the conservatism and co-operative power of the Southern people. In this great economic struggle all elements joined, and the victory is due to the farmer and merchant, the banker and manufacturer alike.

*From his annual review as secretary of the New Orleans Cotton Exchange.

in fact, it was only through the combined efforts of every interest that success was made possible.

Not only has the crop of 1904-1905 been the greatest in number of bales, but it ranks as one of the best in grade and heaviest in weight of bales ever marketed. The average gross weight per bale is 515.58, against 507.69 last year, a gain of 7.89 pounds. The heaviest weight previously recorded in any year since 1879 was 513.96 in 1898-99, the year of the largest previously recorded crop. Up to 1892 in no year did the average gross weight per bale reach 500 pounds. While there are variations in relation to quality in different sections, the average of this crop as a whole may be put at about strict middling, an important consideration to be reckoned with in computing values.

Taking the cotton belt as a whole, the highest price for middling was 11 3/4 cents per pound on the 1st day of September, 1904, and the lowest 6 1/2 cents on the 29th day of December, the average price per pound for middling for the year being 8.85 cents. A fair average of price for the year for the United States (in the cotton belt), the average grade being as stated better than middling, is 8.98 cents per pound, comparing with an average of 12.15 cents last year, 8.82 the year before and 8.06 in 1901-1902.

The average commercial value per bale for the crop is \$46.31, against \$61.68 last year, \$41.52 the year before and \$41.01 in 1901-1902.

The total value of the crop compared with the previous five years is as follows:

Value of Commercial Crop.

	Bales.	Values.
1904-1905.....	13,505,885	\$628,195,359
1903-1904.....	10,011,374	617,501,548
1902-1903.....	10,727,559	480,770,282
1901-1902.....	10,680,680	438,911,687
1900-1901.....	10,383,422	494,567,549
1899-1900.....	9,436,416	363,784,820

These values are based on actual transactions from week to week and from month to month as the crop was marketed, and carefully compared with computations made by the secretaries and superintendents of exchanges at the leading Southern trade centers.

The commercial crop represents nearly the actual growth, though it is not as close thereto this year as it was last season. It was hoped that the returns of the census bureau of cotton ginned might prove almost an exact index of the growth; but careful consideration of the facts convinces me that the revised figures just put forth are still somewhat short of the mark.

If we accept the bureau's 13,693,279 bales as the entire growth, after making allowance for part of this crop marketed in July and August last year, and for other items in connection with the commercial crop which represents the exact quantity of cotton marketed, there would be left of this year's growth in the cotton belt (in round figures) but 322,000 bales. As the 29 leading interior towns held on August 31 125,000 bales and Southern mill stocks (which are counted as part of the cotton left over in the South liable to be either consumed or sold and shipped out of the cotton belt), at least 100,000 bales, this would leave of the 332,000 but 97,000 to represent stocks on plantations and at uncounted interior towns throughout the entire cotton region. In a word, all of the year's growth has not been ginned, or, if ginned, full returns thereof have not been made. The census bureau's methods are admirable, and the returns it receives are worked up by able and trained experts, affording the cotton world a mass of invaluable information superior to any that has ever before been put forth, and I am quite certain, from my own personal investigation and consultation with Director North and some of his principal assistants, that in another season the bureau will be able to give almost an exact showing of the entire growth.

Approximately the actual growth may be put as follows (in thousands of bales):

Commercial crop of 1904-1905.....	13,596
Less old from crop of 1903-1904.....	200
	13,396
Plus growth this year marketed in July and August, 1904.....	80
Grown not marketed in 1904-1905.....	429
	509

	13,875
Deduct July-August receipts of new cotton of crop of 1905-1906.....	75

Actual growth 1904-1905..... 13,800

The quantity of new cotton included in this commercial crop is smaller by 4319 bales than last year, and more by 74,135 than year before last.

American Mills.

American mills North and South have had the most active season on record. The details elsewhere given speak for themselves, but while the total shows an excess in number of bales of American cotton consumed by domestic factories of 495,000 over last season, bringing the aggregate to an amount never before reached, it is at least 350,000 less than it would have been with favorable labor conditions.

In the South the growth of spindles continues on a handsome scale, those in active mills having increased 823,193, and there are new mills in course of construction and additions being made to old concerns embracing over 520,000 spindles. The labor supply, however, has become a serious matter. From every Southern State, and especially the Carolinas, Georgia and Alabama, comes the complaint of interference with operations from lack of help.

The manager of several of the largest mill properties in the South writes me: "From my knowledge of mills in this section and information gathered from other mills in other States I am fully convinced that the South during the past year has not consumed more than 75 per cent. of the capacity of its manufacturing plants. Help has been very scarce, as the mills have increased rapidly, and, owing to the high price of cotton during the last two years, a great many families have gone back to the farms."

This statement is verified by my information direct from the mills, demonstrating that what has been decidedly the largest year's consumption the South has ever reached could have shown much more satisfactory results had it not been for interference of circumstances entirely apart from supply and demand for material and goods. The question is, Are we reaching a period when a temporary halt must take place in the increase of spindles? Has the rapid increase, which is without a parallel, brought us to a point whence, as claimed by the same correspondent, "it seems as if the South for some time to come is to have a large number of idle spindles?"

Years ago a leading New England economist predicted in substance that want of labor would prove a bar to the success of cotton manufacturing in the South. Yet we have advanced by leaps and bounds from a total consumption in 1893-94 of 719,000 bales to 2,163,000 in 1904-1905, while during the past 10 years our gross number of

spindles has increased from 3,177,000 to 9,206,000. The most remarkable feature is that up to the past year the supply of labor has almost kept pace with the demand therefor. The shifting of hands from the manufactory to the cotton field is an event that might naturally be expected to a greater or less extent among the people of an agricultural country, and is likely in time to more or less correct itself. Still cotton mills cannot be operated profitably on uncertain help, and should it become necessary, sharp competition will not unlikely result for the labor of other sections. Should this prove true, it will resolve itself into a question of "the survival of the fittest." At the moment the fact is patent that the South has suffered to the extent of several hundred thousands of bales because it could not work its spindles during the past season to their full capacity. That consumption has not kept pace with the spindles is evidenced by the fact that the average number of pounds consumed to the spindle has dropped from 140.87 in 1901-1902 to 117.74 in 1903-1904 and 120.83 for the past year. This decrease may, in small part, be attributed to resort to finer numbers, but is mainly due to many spindles not having been worked to their full capacity. Quite a number of mills this season report "20 per cent. of our spindles not running for want of help," or "about three-fourths of mill operated; balance closed account scarcity of labor."

As a matter of fact, the spindle capacity of the South is more than sufficient to consume from 2,500,000 to 2,600,000 bales. For the past 12 months the average consumption per month in the South has been 180,292 bales, but the ratio increased in the last half of the season. During the past month (August, 1905) the mills report having used 189,144 bales, which is at the rate of 106,000 bales more per annum than the past year's total shows.

Conditions have not been as bright for many years past, and "the feeling of hopefulness and the belief that a change for the better might be looked for in the near future," which was quoted in last year's report, has been more than realized. Many months must elapse before the vacant goods shelves caused by a long period of scarcity of raw material will be filled, and in the meantime the factories of the world, and especially of this country, will be kept busy perhaps day and night unless it should happen that the ratio of prices between the raw and manufactured article is disturbed to such an extent as to interfere with the demand.

The consumption of American cotton by Northern mills may be put at 2,200,000 bales, against 1,950,000 last year. They took in round figures 2,282,000, but of this they have carried over in stock about 82,000 bales. The comparisons for the past two years are as follows (in thousands):

	This year.	Last year.
Northern mill stocks beginning of year.....	152	75
Takings.....	2,282	2,027
Supply.....	2,434	2,102
Year's consumption.....	2,290	1,950
Northern mill stocks close season.....	234	152

The use of foreign cotton by American mills has increased. Referring to details below under head of "The Importation of Foreign Cotton," manufacturers North and South have taken of Egyptian and other importations (mostly Egyptian) the equivalent in American weights of 120,083 bales, against 94,729 last year and 144,232 the year before. Only a small portion was consumed in the South.

The following tables sum up the entire takings and consumption of cotton in the United States:

Takings of Cotton, All Kinds, by American Mills.

	This year.	Last year.
Takings:	Bales.	Bales.
North-American.....	2,282,145	2,027,967
Foreign, reduced to equivalent in bales of American weights.....	110,596	85,390
Total takings, North.....	2,392,741	2,113,357
South-American.....	2,163,506	1,919,252
Foreign.....	99,487	79,339
Total takings, South.....	2,172,992	1,928,591
Total takings, North and South.....	4,565,733	4,040,948

*9567 actual bales, mostly Egyptian, equal to 9487 American bales.

**6400 actual bales, mostly Egyptian, equal to 9939 American bales.

The consumption, all kinds, was:

	This year.	Last year.
North.....	2,310,596	2,035,390
South.....	2,172,992	1,928,591
Total consumption, all kinds.....	4,483,588	3,963,981

Cotton Takings by American Mills.*

Year ending	Northern Mills.	Southern Mills.	Total.	Crop.
August 31.	Bales.	Bales.	Bales.	Bales.
1899.....	1,790,358	546,894	2,337,252	7,311,392
1891.....	2,027,362	604,661	2,632,023	8,652,597
1892.....	2,190,766	696,080	2,876,846	9,035,379
1893.....	1,687,286	743,848	2,431,134	6,700,365
1894.....	1,601,173	718,515	2,319,688	7,549,817
1895.....	2,083,839	862,838	2,946,677	9,901,251
1896.....	1,600,271	904,701	2,504,972	7,157,346
1897.....	1,804,680	1,042,671	2,847,351	8,757,994
1898.....	2,211,740	1,231,841	3,443,581	11,199,994
1899.....	2,190,085	1,399,359	3,589,444	11,274,840
1900.....	2,068,390	1,597,112	3,665,502	9,436,416
1901.....	1,967,570	1,620,931	3,588,501	10,383,422
1902.....	2,050,774	1,937,971	3,988,745	10,680,680
1903.....	2,067,635	2,000,729	4,068,364	10,727,559
1904.....	2,026,967	1,919,252	3,946,219	10,011,374
1905.....	2,283,145	2,163,506	4,446,650	13,565,885

*American cotton.

The consumption of American cotton on both sides of the Atlantic and across the Pacific during the past year has been 11,883,000 bales, against 10,193,000 last year and 10,876,000 the year before.

The importation of foreign cotton during the year amounted to 62,645,481 pounds, of which 733,202 pounds were re-exported, leaving the net amount retained in the United States 61,912,279 pounds, an equivalent of 120,083 bales in American weights, against 48,092,635 pounds, equal in American weights to 94,729 bales.

American Cotton Crop for Four Years. (Year Ending Close of August.)

	1904-1905.	1903-1904.	1902-1903.	1901-1902.
	Bales.	Bales.	Bales.	Bales.
Port receipts.....	10,319,782	7,252,222	7,724,104	7,679,290
Overland to mills.....	1,128,185	939,943	1,083,383	1,103,963
Southern consumption.....	2,163,506	1,919,252	2,000,729	1,937,971
	13,611,470	10,111,417	10,808,216	10,721,214
Less taken by Southern mills from ports.....	45,585	100,043	80,657	40,534
Total crops.....	13,565,885	10,011,374	10,727,559	10,680,680

Exports:				
Great Britain.....	4,190,474	2,577,977	2,851,525	3,035,497
France.....	867,738	705,069	785,679	745,969
*Continent and Channel.....	3,747,104	2,745,009	3,039,959	2,859,341
Canada.....	151,582	89,966	123,677	122,261
Total exports.....	8,876,898	6,118,001	6,800,843	6,763,071
Stock close of year.....	319,405	112,427	162,040	164,772
Northern mill takings.....	2,382,145	2,026,967	1,967,635	2,501,774
Average gross weight of crop per bale, pounds.....	515.58	507.69	508	508.43

*Including Mexico, Japan and China, details of which are given in Export Table.

Net Receipts of Cotton at United States Ports.

(As per form in use by the Cotton Exchanges.)

	1904-1905.	1903-1904.
	Bales.	Bales.
New Orleans.....	2,689,520	2,008,257
Galveston.....	2,879,336	2,406,031
Mobile and Pensacola.....	524,707	321,892
Savannah.....	1,877,343	1,165,519
Charleston.....	225,366	157,352
Wilmington.....	375,383	321,613
Norfolk.....	822,930	483,651
Baltimore.....	72,427	30,355
New York.....	35,795	18,561
Boston.....	13,644	35,110
Philadelphia.....	14,544	7,569
Jacksonville and Fernandina.....	18,244	16,156
Newport News.....	199,193	114,791
Brunswick.....	4,500	1,100
El Paso, Texas.....	16,276	19,087
Laredo, Texas.....	13,921	13,372
Eagle Pass, Texas.....	456,005	117,035
San Francisco, etc.....		
Total port receipts.....	10,319,782	7,252,222

NOTE.—Light-weight round bales have in all cases been included in receipts as half-bales.

Exports.

	1904-1905.	1903-1904.
	Great Britain. Bales.	Continent and Channel. Bales.
New Orleans.....	1,135,830	376,143
Galveston.....	1,329,779	284,902
Mobile and Pensacola.....	196,297	89,745
Savannah.....	275,817	51,489
Charleston.....	4,789	75,253
Wilmington.....	182,549	9,654
Norfolk.....	2,106	14,116
Baltimore.....	154,500	5,724
New York.....	340,936	46,167
Boston.....	215,426	4,932
Philadelphia.....	96,650	1,782
Newport News.....	21,785	100
Brunswick.....	162,682	6,916
San Francisco.....		153,079
San Diego.....		144,248
Port Townsend.....		118,949
El Paso, etc.....	61,388	
Totals.....	4,190,474	8,745,316
Last year.....	2,577,977	6,028,045
Year before.....	2,851,525	6,677,166

*Included under Continent are exports to Mexico and Japan and China, which are to Mexico this year 16,412 from New Orleans, 15,301 from Galveston, none from Mobile, none from New York, 16,276 from Laredo, 450 from El Paso, 13,921 from Eagle Pass and 2077 from Nogales, etc., a total of 68,487, against 56,475 last year and 62,478 the year before last; to Japan and China 333,883 from San Francisco, Portland and other ports, against 47,645 last year and 135,408 the year before.

COTTON CONSUMPTION IN THE SOUTH.

Census of Southern Mills, Made Up From Actual Returns of the Mills, by Mail and Telegraph, for Year Ending Close of August, 1905.

The actual consumption of cotton by the mills of the South during the commercial year just ended has reached a total of 162,776 bales more than ever before recorded, and is 244,253 ahead of last season. Every State shows an increase but Louisiana, which is 2045 bales behind last year. North Carolina leads with an excess of 71,336 bales, followed by Georgia with 63,774 gain, and South Carolina with 62,210 increase, 80.8 per cent. of the net aggregate excess being in the three States last named.

Compared with the unsatisfactory and depressed conditions of last year this handsome showing is a source for congratulation, but it is shadowed by the fact that large as the total is, it is less by more than 250,000 bales than conditions warranted. As stated elsewhere, under head of "American Mills," from every State comes the plaint of scarcity of labor, the supply having been depleted by the removal of many families to farms, a result of high prices for raw cotton, while the increase of spindles called for more help than could be obtained even without this depletion.

The growth of spindles still continues at a handsome rate. In the active mills 823,193 more spindles are recorded: the permanently idle spindles have been reduced from 278,003 at this time last year to 210,702, and there are being erected 30 new mills, which, with the additions to old concerns, will embrace 520,556 new spindles.

The total consumption for the year is 2,163,505 bales, against 1,919,252 last year and 2,000,729 the year before, an increase over last year of 244,253 bales and over the year before of 162,776. Most of the gain in consumption was during the last half of the year, many establishments still feeling the effects of last year's scarcity and depression during the first three or four months; hence while the average consumption per month for the first 11 months was 179,407 bales, that of last month (August) had increased to 189,144, or an equivalent for a 12 months' consumption of 2,269,728. At the August rate of consumption the present capacity of all the spindles in the South, old, idle and not complete (and many of the latter will be ready for operation early in the coming season), is over 2,450,000 bales. But even this is not up to the capability of the Southern mills, as during the past three years, with the large additions, at no time have all the spindles in going mills been fully occupied, and with fairly good conditions and sufficient labor the annual outturn could readily be made to surpass 2,500,000 to 2,600,000 bales.

The labor question, to which reference is made more fully elsewhere in this report, has created more or less of uncertainty as to the immediate future in reference to new mills and increase of spindles in existing establishments. I am informed of several instances where projects and improvements have been delayed to await further developments.

Referring to the details given in the tables annexed, I desire to emphasize the fact that there has been no guesswork in this report. The list of mills in the South was made up, after many weeks of patient and careful investigation, by correspondence in every State and by comparison also with the publications of the "Textile World," the "American Textile Directory" and "Blue Book" just issued, which are considered standard authorities as compilers of mill directories, so that I have had the benefit of their investigations as well as of my own experience of many years in locating the mills. Every mill in the South has reported to me direct but 15 out of 777 regular cot-

ton mills, and these (of which I have obtained data sufficiently close to cover all the purposes of an actual census) used but an infinitesimal fraction of the total quantity consumed. In addition I have secured returns from every woolen mill, batting and mattress factory and every knitting mill that has spindles and used raw cotton; in fact, I have knocked at the doors of every institution of any kind in the South that uses raw cotton, and have invariably met with kind and prompt responses.

Consumption of Foreign Cotton in the South.

	Mills.	This year. Bales.	Last year. Bales.
Alabama.....	1	703	553
Georgia.....	2	1,324	1,403
North Carolina.....	4	1,726	1,580
South Carolina.....	6	2,013	2,861
Kentucky and Tennessee—woolen mills.....	—	—	3
Total.....	12	6,766	6,400

Equal in bales of American weights to 9487 this year and 9039 last year.

Southern Spindles Consuming Foreign Cotton.

	In operation.	New, not complete.
Alabama.....	9,563	—
Georgia.....	23,536	—
North Carolina.....	14,548	—
South Carolina.....	28,193	—
Total.....	75,840	—

Total in operation 75,840 spindles, against last year 68,412 in operation, and 20,000 new not complete. Two of the mills building last year intended for foreign cotton have since been completed, but have used domestic cotton only.

How the cotton-manufacturing industry has advanced is best told by the following showing.

The yearly net additions are new mills, less deductions on account of burnt, dismantling, etc.:

Total mills in the South consuming raw cotton September 1, 1890 (old, new and not complete).....	336
1890-1891, net additions.....	1
1891-1892, ".....	16
1892-1893, ".....	13
1893-1894, ".....	17
1894-1895, ".....	17
1895-1896, ".....	49
1896-1897, ".....	40
1897-1898, ".....	7
1898-1899, ".....	9
1899-1900, ".....	59
1900-1901, ".....	113
1901-1902, ".....	25
1902-1903, ".....	28
1903-1904, ".....	23
1904-1905, ".....	15
Total mills in the South consuming cotton (old, new and not completed) September 1, 1905.....	777

An increase since 1890 of 441 mills. I have used the words "mills consuming cotton" because there are factories known as woolen mills, etc., each consuming considerable raw cotton annually and which naturally are classed as cotton consumers.

In this connection the record of spindles since 1890 may prove of still more interest:

1890.....	295,359
1870.....	338,890
1880.....	561,360
1890.....	1,819,231
1895.....	3,177,310
1900.....	6,267,163
1901.....	6,531,894
1902.....	7,512,982
1903.....	8,248,275
1904.....	8,615,369
1905.....	9,265,949

The roster of mills is as follows:

Total number last year.....	762
Crossed out and merged into other concerns.....	15
New and uncompleted added to list.....	747
Total number cotton mills in the South.....	777

The record of spindles in the South shows:

	This year.	Last year.
Total in operation.....	8,474,691	7,651,498
Idle.....	210,702	278,003
New, not completed.....	520,556	685,208
Grand total.....	9,205,949	8,615,369

showing an increase of spindles, active, idle and not complete, over last year of 590,580, and a net gain of spindles at work of 823,193.

As indicated by the tables annexed, the total consumption in all the mills, old and new, for the year was 2,163,505 bales, against 1,919,252 last year and 2,000,729 for the season of 1902-1903, an increase over last year of 244,253 and over the year before of 162,776. The changes in each State as compared with last year were as follows:

	Gains. Bales.	Losses. Bales.
Alabama.....	11,474	—
Arkansas.....	1,796	—
Georgia.....	63,774	—
Kentucky.....	5,481	—
Louisiana.....	—	2,045
Mississippi.....	8,284	—
Missouri.....	2,120	—
North Carolina.....	71,336	—
South Carolina.....	62,210	—
Tennessee.....	6,714	—
Texas.....	12,037	—
Virginia.....	2,072	—
Totals.....	246,298	2,045
Total net gain.....	244,253	—

The average consumption per spindle in the mills in operation has been 3.09 pounds more than last year and 15.61 less than the year before.

The comparisons for the past 13 years are annexed:

Average Consumption Per Spindle by Southern Mills.

	Pounds per spindle.
1904-1905.....	120.83
1903-1904.....	117.74
1902-1903.....	136.44
1901-1902.....	140.87
1900-1901.....	135.77
1899-1900.....	154.58
1898-1899.....	162.51
1897-1898.....	155.66
1896-1897.....	140.16
1895-1896.....	142.67
1894-1895.....	164.45
1893-1894.....	147.60
1892-1893.....	160.30

The course of consumption since 1889-90 is shown at a glance as follows:

	Consumption.	Bales.	Increase.	Decrease.
1889-1890.....	546,884	.....	.....	.....
1890-1891.....	604,661	57,767	.....	.....
1891-1892.....	686,080	81,419	.....	.....
1892-1893.....	743,848	57,768	.....	.....
1893-1894.....	718,515	.....	25,333	.....
1894-1895.....	804,701	86,186	.....	.....
1895-1896.....	1,042,671	237,970	.....	.....
1896-1897.....	1,231,841	189,170	.....	.....
1897-1898.....	1,399,399	167,558	.....	.....
1898-1899.....	1,597,112	197,713	.....	.....
1899-1900.....	1,620,931	23,819	.....	.....
1900-1901.....	1,937,971	317,040	.....	.....
1901-1902.....	2,000,729	62,758	.....	.....
1902-1903.....	1,919,252	81,477	.....	.....
1903-1904.....	2,163,506	244,253	.....	.....
1904-1905.....	.....	.....	.....	.....

Net increase since 1890 of 1,616,611 bales.

Southern Cotton Mills in 1904-1905.

	MILLS.	Total.	In operation.	New, not completed.
			Old.	New.
Alabama.....	69	69	65	4
Arkansas.....	5	5	5	0
Georgia.....	146	146	128	18
Kentucky.....	7	7	7	0
Louisiana.....	4	4	4	0
Mississippi.....	26	26	21	5
Missouri.....	2	2	2	0
North Carolina.....	279	279	261	18
South Carolina.....	170	170	162	8
Tennessee.....	29	29	29	0
Texas.....	18	18	15	3
Virginia.....	17	17	14	3
Total.....	777	777	701	76
Last year.....	702	702	660	42
Year before.....	740	740	644	96

*Including 12 mills for foreign cotton, 12 in operation and none new, not complete.

†Including mills commenced this year and those under this head last year not yet completed.

	LOOMS.	Active.	Idle.	Not complete.	Total.
Alabama.....	17,042	17,042	.....	186	17,228
Arkansas.....	240	240	272	.....	512
Georgia.....	33,395	33,395	956	977	35,328
Kentucky.....	1,292	1,292	73	.....	1,365
Louisiana.....	1,584	1,584	75	900	2,559
Mississippi.....	4,291	4,291	240	669	5,191
Missouri.....	356	356	.....	.....	356
North Carolina.....	49,913	49,913	428	1,593	51,934
South Carolina.....	80,560	80,560	384	3,052	83,996
Tennessee.....	3,009	3,009	2,011	729	5,749
Texas.....	2,699	2,699	150	2	2,841
Virginia.....	7,243	7,243	306	.....	7,609
Total.....	201,054	201,054	4,983	8,090	214,127
Last year.....	185,144	185,144	5,713	15,916	206,873
Year before.....	171,441	171,441	3,267	28,268	202,976

	SPINDLES.	Total.	In operation.	Idle.	New, not completed.
			Old.	New.	
Alabama.....	855,559	855,559	822,687	2,000	4,500
Arkansas.....	28,324	28,324	14,374	.....	14,000
Georgia.....	1,551,512	1,551,512	1,418,536	4,132	49,312
Kentucky.....	85,692	85,692	81,792	400	3,000
Louisiana.....	93,924	93,924	62,428	.....	4,996
Mississippi.....	180,096	180,096	148,504	2,540	11,330
Missouri.....	14,216	14,216	.....	.....	.....
North Carolina.....	2,318,609	2,318,609	2,202,822	4,280	12,507
South Carolina.....	3,360,557	3,360,557	3,171,093	.....	16,000
Tennessee.....	215,621	215,621	173,217	.....	59,204
Texas.....	104,752	104,752	74,812	.....	29,620
Virginia.....	307,496	307,496	249,308	.....	10,690
Total.....	9,205,919	9,205,919	8,461,039	13,652	210,702
Last year.....	8,615,369	8,615,369	7,635,379	16,122	278,603
Year before.....	8,248,275	8,248,275	6,880,102	9,292	1,745,776

*Exclusive of 75,840 spindles using foreign cotton—say, 9563 active in Alabama, 3536 active in Georgia, 14,518 active in North Carolina, 28,192 active in South Carolina.

†Including spindles added to old mills, less spindles thrown out during year, and new, not complete mills of last year which started operations this season.

‡Includes spindles being added to old mills as well as those in new concerns.

Southern Consumption of American Cotton Year Ending August 31.

	(Actual figures reported by the mills.)	No. mills.	Looms.	Spindles.	Bales.	1905.	1904.
Alabama.....	66	17,042	824,687	223,872	212,398	.....	.....
Arkansas.....	5	240	14,374	3,240	1,444	.....	.....
Georgia.....	129	33,395	1,452,668	483,335	419,561	.....	.....
Kentucky.....	8	1,292	82,192	25,822	30,341	.....	.....
Louisiana.....	4	1,584	62,428	14,076	16,121	.....	.....
Mississippi.....	26	4,291	151,644	40,128	31,841	.....	.....
Missouri.....	2	356	.....	6,461	4,311	.....	.....
North Carolina.....	263	49,913	2,202,822	602,150	570,814	.....	.....
South Carolina.....	161	80,560	3,171,093	625,190	563,990	.....	.....
Tennessee.....	29	3,009	173,217	51,447	44,733	.....	.....
Texas.....	15	2,699	74,812	28,773	16,736	.....	.....
Virginia.....	14	7,243	249,308	59,011	56,939	.....	.....
Totals.....	4707	201,054	8,474,691	2,163,505	1,919,252	.....	.....
Less consumed and taken from Southern seaports and included in port receipts.....	.....	.....	.....	45,585	100,043	.....	.....
Net consumption to be added to crop.....	.....	.....	.....	2,117,920	1,819,209	.....	.....

*Mills in operation only. For total in South see other table.

†Employed in mills in operation. For total looms and spindles in South see other table.

‡Exclusive of two mills in operation using only foreign cotton—one in North Carolina and one in South Carolina.

§Spindles working American cotton only. For statement foreign see elsewhere.

United States Spinners' Takings of American Cotton.

	1904-1905.	1903-1904.
Total crop United States.....	13,565,885	10,011,371
Stocks at ports beginning of year.....	112,427	162,040
Total supply.....	13,678,312	10,173,411
Exported during year.....	8,745,316	6,028,045
Sent to Canada.....	131,582	89,356
Total.....	8,876,898	6,118,001
Less American cotton returned from foreign ports:	.....	.....
To New York.....	417	4,014
New Orleans.....	.....	.....
Burlington, Vt.....	417	4,128
Burnt at ports.....	8,876,481	6,113,573
Stock at close of year.....	319,405	112,427
Total takings for consumption, United States.....	9,232,662	6,227,193
Of which—	.....	.....
Taken by spinners in Southern States—total.....	2,163,505	1,919,252
Taken by Northern spinners.....	2,282,115	2,026,967

SOUTHERN COTTON ASSOCIATION.

Definite Results of the Executive Committee's Meeting at Asheville.

[Special Cor. Manufacturers' Record.]
Asheville, N. C., September 12.

At its meeting here last week the executive committee of the Southern Cotton Association, after a summing up of the figures from all the cotton fields in the South, announced its estimate of the present cotton crop to be 9,588,133 bales. It then agreed that the new-crop cotton should not be sold for less than 11 cents a pound. Further it put in operation a finance plan for raising a fund of \$300,000 to back the general State and county organizations. This sum is to be secured by a levy of three cents on each bale of cotton. Mr. E. D. Smith of South Carolina was made manager and financial agent at a salary of \$5000, and the farmers were urged to market the new-crop cotton slowly.

These were the salient features of what may be truthfully considered an epoch-making convention. It was expected that the committee would publish an estimate of the size of the present cotton crop, would fix a price below which the farmers of the South should not sell their cotton and would devise a scheme for financing the Southern Cotton Association. This much it did, and much more. It disclosed to the world that although young, it was a giant of strength and it was practically in control of the marketing of the great crop of the South. It showed further, and most important of all, that it is independent of any aid that might be volunteered from the outside.

The organization is now doubly strong, inasmuch as it has provided a safe and ample plan for financing itself without looking to Northern syndicates. It is evident that President Harvie Jordan has assurance of all the financial aid he may need from Southern banking concerns, as it may be said that now for the first time the business men, bankers and farmers of the South are standing solidly together.

This meeting demonstrated to the financial and commercial world that a new power has sprung up in the South, but the full extent of the power of this new factor has not yet been realized. It is capably financed and has the full support of practically every cotton planter in the South. These two important details—the money to carry on its business and the unanimous support of the farmers—had been the only things needed to establish the power and influence of the association. They have been supplied, and thus the Southern Cotton Association rises up as a new power in the cotton world.

Since the Asheville convention the farmers of many counties in this and other Southern States have held meetings and adopted resolutions endorsing the action of the Southern Cotton Association and pledging themselves to stand by its decision as to the price of cotton. The farmers of the South are in position to do this. Only the small croppers need to sell, and the landlords can and will give them advances to enable them to hold the cotton.

Further than this, the warehouse system is being perfected, and the day when the farmer has to hurry his cotton to market to get cash for his immediate needs is a thing of the past. The Southern cotton planter has long needed an anchor. He has found this at last in Harvie Jordan and the Southern Cotton Association.

Several members of Congress are planning to make the trip from Chicago to New Orleans in a steam launch for the purpose of gaining direct information to be used in furthering the project for a deep waterway connecting the Lakes and the Gulf by way of the Illinois and the Mississippi rivers.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Cotton Near Beaumont.

Mr. H. G. Spaulding, secretary of the Beaumont (Texas) Chamber of Commerce, writes to the MANUFACTURERS' RECORD:

"Henry Monvert and William Morrell are contemplating putting in a 70-saw gin and other machinery for taking care of the cotton in the vicinity of Fannette, Jefferson county, next year, the crop being too small to justify it this year. The cotton that is being grown there this year looks fine, and gives promise of producing pretty close to a bale to the acre. This year there are 50 acres, while next there will be 500 to 1000 acres. The farmers about Nederland have over 200 acres of fine cotton this year, some of it promising over a bale to the acre, some being picked already. This is eight miles from Beaumont, while Fannette is 16. A one-stand gin will be placed here to take care of the cotton in this vicinity this year, this crop being the largest raised in this country for 20 years. W. M. Bamberg, special agent of the Department of Agriculture, has been here all the week, and is very much delighted with the prospects, no indications of the boll-weevil being found. Some of the large landowners living in Beaumont have become interested, and may put in a considerable acreage next year."

The Globe Manufacturing Co.

Last week the MANUFACTURERS' RECORD reported the incorporation of the Globe Manufacturing Co. of Gaffney, S. C., which will carry out the plans which W. M. Webster formulated for the establishment of another cotton mill at Gaffney. During the past week the company has organized with Mr. Webster, president and treasurer; W. C. Lipscomb, vice-president, and the following directors: Messrs. Webster and Lipscomb, W. A. Carroll, W. N. Smith, J. N. Lipscomb, J. C. Jeffries, D. C. Ross, W. C. Carpenter, H. D. Wheat and H. L. Spears. The company has purchased a building which will be reconstructed and added to for its purposes. As has been stated, it is planned to install an equipment of 4000 spindles to start with, the product to be coarse yarns. The company's authorized capital is \$200,000.

Contract for Yarn Mill.

The MANUFACTURERS' RECORD has previously told the decision of the Richmond Hosiery Mills of Rossville, Ga., to manufacture the yarns consumed by its knitting mill. The company had decided to expend \$100,000 and to equip the plant with 5000 spindles and other accompanying apparatus of modern design and make. After some consideration it has been determined to locate the mill at Rossville, and during the past week the contract for erecting the required building has been awarded. The structure will be two stories high, 100x200 feet. Contract for the new machinery has been awarded to the Howard & Bullough American Machine Co. of Pawtucket, R. I. This Richmond Hosiery Mills operates 300 knitting machines, and its product is hosiery.

The Warioto Cotton Mills.

Messrs. Jo B. Morgan, Joseph H. Thompson, William Nelson, Edwin Warner and

M. J. Smith have incorporated the Warioto Cotton Mills of Nashville, Tenn., with capital stock of \$200,000, to manufacture cotton goods. They will organize this company to carry out their plans, recently referred to, for modernizing the plant of the Tennessee Manufacturing Co. This plant will be purchased, but possession will not be given for some time, as the mill is now under lease to a manufacturer who is operating it. The new company is to be organized in the future with W. R. Odell, the well-known cotton manufacturer of Concord, N. C., as president, and Jo B. Morgan of Nashville will be secretary. Details regarding the improvements will be announced as soon as they are finally determined.

Doubling Handkerchief Factory.

The continued demand for the product of the Charlotte Handkerchief Manufacturing Co. of Charlotte, N. C., makes it necessary that the output be largely increased. To effect this the company will install 12 new hemstitching machines and other mechanical equipment, contracts for which have been awarded. A large building adjacent to the company's present structure will be occupied for the improvements. The company will increase its product from 300 to 600 dozen handkerchiefs daily. It has been confining its output to plain white hemstitched goods, but with the improvements will be in a position to manufacture colored and fancy goods in cotton and linen. This enterprise was originally established last January.

Rebuilding Jackson Woolen Mills.

No time is being lost to replace the large plant of the Jackson Woolen Mills at Jackson, Tenn., which was destroyed by fire some 10 days ago at a loss of \$100,000. The company's insurance covered more than half of that amount. Arrangements have been completed for a temporary building, which will be occupied while a permanent structure is in course of erection, and contracts for the new machinery have been awarded. The company will not be open to proposals for anything except its electric-lighting plant and elevators. The MANUFACTURERS' RECORD stated last week that this plant would be rebuilt.

Modena Mill No. 3.

In April the MANUFACTURERS' RECORD announced brief details regarding the Modena Cotton Mills of Gastonia, N. C., in connection with its erection of an additional mill. The construction work has since progressed steadily, and the buildings are now about completed. The new building is two stories high, 75x150 feet, with a capacity for 10,000 spindles, although only 8000 spindles will be installed to start with. The company's two older mills have a total of 9072 spindles and 216 looms. The cost of the enlargement is about \$100,000.

Another Mill for Spray, N. C.

The MANUFACTURERS' RECORD is informed that another textile enterprise will be established at Spray, N. C. The American Thread Co. has been organized for the purpose, and will install a modern equipment of machinery for manufacturing fine cotton and woolen yarns. Mule spindles will be operated. Further details regarding this company will be known soon.

Textile Notes.

W. B. Johnson of Johnson City, Tenn., will establish a knitting mill, a number of knitting machines having already been contracted for. Hosiery and other knit goods will be manufactured.

Messrs. W. A. Tigner, H. Sheard and G. B. Murrell have incorporated the Dixie Woolen Co. at Atlanta, Ga., with capital stock of \$75,000.

The Blades Hosiery Mills Co. of Newbern, N. C., whose plant was recently damaged by fire, has not decided whether it will or will not rebuild.

The Raccoon Cotton Mills of Raccoon, Ga., has resumed operations, after an idleness of some months. It has an equipment of 3400 spindles and 104 looms.

Considerable changes and additions of new machinery have recently been completed by the Eldorado Falls Cotton Mills of Milledgeville, N. C., increasing the company's capacity to a large extent. This company has offices at 76 South street, New York.

The Cotton-Oil Market.

[Special Cor. Manufacturers' Record.]
New York, September 12.

Conditions governing the market for cotton oil, which, among others, comprised heavy liquidations for September oil, an apparently concerted action on the part of consumers in holding off and a sharp break in lard values, created decided weakness, with the result that prices dropped to the extent of $1\frac{1}{4}$ to $1\frac{1}{2}$ cents. The withdrawal, too, of the last remaining support given the market at the close of last month further emphasized the weakness and thereby contributed materially to the decline. The break stimulated buying, with local operators selling freely and offerings heavier than at any previous period of the season. The heavy tenders so far this month reach 32,000 barrels, which fact, together with the drop in lard, gave bullish interests a severe setback. Exporters came into the market cautiously, a few sales being reported, but the fact of large arrivals being in evidence, with pressure to sell, caused them to hold off in the expectation of being in a position to purchase to better advantage in the immediate future. It was evident, however, that this sentiment lacked substantiation, and at the close trading revived, with the prospect of nearby heavy business transactions. "Prompt goods," said one large commission house, "have practically flooded the market during the week, and all commission firms are busy delivering oil from steamers, railroads and warehouses."

Compound lard makers are practically out of the market at the moment, notwithstanding that it is certain, owing to the heavy demand prevailing for that product, that they will have to replenish cotton-oil stocks in the near future, although they profess that $23\frac{1}{2}$ cents for new-crop crude oil does not interest them. The feeling among traders is that no further decline will take place, at least not for some time, regardless of the volume of free offerings and apparent pressure to realize on holdings. Prices as they now stand appear to be nearer a working basis, and there are indications of an improved demand for new crude oil and early recovery from the late depression.

A review of the lard market leads to the conclusion that while the prospect of a very large corn crop had much to do with the decline in that product, there is no immediate expectation of a further material decline. Tallow has eased off $\frac{1}{8}$ c. per pound, in sympathy with the drop in lard.

Sales reported were 2400 barrels October, $30\frac{1}{4}$ cents; 1200 barrels at $30\frac{1}{4}$ cents, and 3000 barrels at 29 cents; for September, 1500 barrels at $29\frac{1}{2}$ cents, 650 barrels at $29\frac{1}{4}$ cents, 1700 barrels at $30\frac{1}{4}$ cents, 2600 barrels at 28 $\frac{3}{4}$ cents, 1900 barrels at 29 cents; December, 300 barrels at $29\frac{1}{4}$ cents; 1400 barrels January at prices ranging from 29 to $29\frac{1}{2}$

cents; May, 3400 barrels at from 30 to $30\frac{1}{2}$ cents.

The cotton crop, with regard to its extent, appears yet to be problematical, and seed values as well as those of new-crop oil are matters of speculation as a result. It will interest the cottonseed-crushing trade to learn that members of the committee on agriculture of the House of Representatives are giving serious consideration to the proposition to transfer the work of collecting the cotton-crop statistics to the census bureau, at the same time eliminating certain features of the work which now depends on estimates, thereby reducing the availability of the government reports for speculative purposes. The element which makes this latter the base of their business dealings is expected to oppose the proposition.

At the close today cotton oil was firmer and active, liquidations on old-crop oil being the feature, with fair export business. The Produce Exchange prices are as follow: Crude in tanks, new crop, South, $22\frac{1}{2}$ to 23 cents; prime spot summer yellow, $28\frac{3}{4}$ to 29 cents; forward delivery prime summer yellow, $28\frac{3}{4}$ to 30 cents; white oil, 31 cents, and winter yellow prime, 31 cents; Memphis oil, 24 cents.

Refined cotton oil, Hull, is now quoted at 17s.; market weak and declining.

Memphis cake and meal, \$23 and \$21.50 New Orleans, March-April shipment.

The cotton cake and meal market, Liverpool and London, quoted £6 5s. to £6 7s. 6d. per ton next two months' shipments or delivery c. i. f. steamship.

Receipts of cotton oil for the week amounted to 9750 barrels.

Birmingham's Union Station.

P. Thornton Marye of Atlanta, Ga., will, according to a report from Birmingham, Ala., provide the plans for the new union passenger station in the latter city. The station will be two stories high, and will be constructed of brick, stone and terra-cotta. The French renaissance style of architecture has been selected. The interior will be handsomely finished and decorated, and will have marble floors.

The station will front on 26th street at its intersection with Fifth avenue, and will be 125 feet wide by 785 feet long. The train shed will be 700 feet in length, and will have 11 tracks. The entire improvement will cost about \$1,000,000. Walter H. Harrison, chief engineer of the Atlanta Company, will also be chief engineer for the Birmingham station.

The new depot will be used by the Southern Railway, the Alabama Great Southern Railroad, the Seaboard Air Line Railway, the Central of Georgia Railway and the St. Louis & San Francisco Railroad. It is to be completed by January, 1907. The president of the Birmingham Terminal Co. is G. B. McCormack of Birmingham.

Chance for a Plumber.

A correspondent of the MANUFACTURERS' RECORD at Orangeburg, S. C., writes: "There is an opening here for a competent plumber, and, combined with the tin business, he should indeed do well. If you care to use this as an item it may perchance serve the interests both of the growing town and of some deserving aspirant for work. He will have his hands full this winter."

Letters addressed to "Orangeburg," care of the MANUFACTURERS' RECORD, will be forwarded to the correspondent.

A British steamship unloaded 3000 tons of kainit at the port of Fernandina, Fla., last week and 3050 tons at Jacksonville. There are over 19,000 tons of phosphate booked for September shipment from Fernandina.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIRMINGHAM BELT.

Purchase of a Large Tract Will Enable the Company to Complete Line.

The Birmingham Belt Railroad at Birmingham, Ala., controlled by the Frisco system, has bought about 200 acres of land along Village creek between North Birmingham and Thomas, and it is said that this property, together with certain rights of way, will enable the company to complete the circuit of its tracks around the Birmingham district. A line will be constructed as soon as practicable over the entire route, and freight yards with freight stations will be built.

A considerable portion of the property will be used for industrial purposes, particularly that along Village creek, and it is understood that negotiations are under way to secure the establishment of a \$1,000,000 plant.

Mr. A. D. Lightner, general manager of the Belt Line, is reported as saying that the property is being laid off and that it provides for every requirement of the company. The tract is about 9000 feet long and from 300 to 900 feet wide.

Virginia & Carolina Coast.

The Pamlico, Oriental & Western Railway Co. has, according to a press report from Newbern, N. C., accepted a proposition made by Col. W. B. Rodman, representing the Virginia & Carolina Coast Railroad Co., to take over the contract for completing the line, which is now being built by Mr. James A. Bryan. The road is to run from Newbern to Bayboro, Oriental and Goose Creek Island, 52 miles, and about 20 miles are finished.

The Virginia & Carolina Coast Railroad, as recently noted, has purchased the Suffolk & Carolina Railway, and will develop the timber lands of the John L. Roper Lumber Co. in North Carolina and will build a new railroad connecting the latter line with the Newbern road. J. T. Odell, Rudolph Kleybolte & Co. and others of New York and Norfolk are interested in this plan, which is also said to include the building of a 25-mile extension from South Mills to Norfolk. F. E. Dewey is general manager of the new company.

Richmond to Ashland.

The Richmond & Chesapeake Bay Electric Railway is reported to have obtained 80 per cent. of the right of way for its line from Richmond, Va., to Ashland, Va., 20 miles, and it is expected that construction will begin within two months, as steps to obtain the remainder of the necessary land are well under way. The line is to be built with oak ties, 80-pound rails and stone ballast, with a maximum grade of 1 per cent. The cars are now being built, and are similar to those used on the elevated railways in New York.

The Richmond terminus will be at 814 West Broad street and the Ashland terminus will be at Virginia and England streets. In Richmond the line entering the station will be on a steel viaduct 2300 feet long. Power will be obtained from the Virginia Passenger & Power Co., but an auxiliary plant will be built at Ashland and possibly another plant between that place and Richmond. This is the line backed by Frank J. Gould, who is its president.

Rumored Tennessee Central Deal.

According to press reports from Nashville, Tenn., the Illinois Central Railroad and the Southern Railway have secured

control by lease or otherwise of the Tennessee Central Railroad, and will divide the property between them, the Illinois Central taking that section lying between Nashville, Tenn., and Hopkinsville, Ky., 85 miles, and the Southern Railway acquiring the eastern division from Nashville to Harriman Junction, 166 miles, besides 47 miles of branches.

Reports from New York and Chicago deny that any such deal has been made, and President Fish of the Illinois Central is quoted as saying that there is nothing in it, while a director of the Southern Railway is also credited with pronouncing it untrue. Nevertheless the report is persistently circulated at Nashville that a deal is on hand, and it appears to be believed that if negotiations are not closed they will at least be completed soon.

Little Rock & Hot Springs.

It is reported from Little Rock, Ark., that the Little Rock & Hot Springs Electric Railway Co., C. J. Kramer, president, has secured right of way 100 feet wide for practically all of its line, which will be 53 miles long and will traverse a tract of 100,000 acres of timber land.

The road will be standard gauge, with 75-pound steel rails, and the equipment will be as follows: Ten passenger cars 52 feet long, with four 50-horse-power motors for interurban service; four passenger cars for city and suburban service, four baggage cars 40 feet long for handling merchandise and produce, two 75-ton electric motors for handling freight equipment, and six flat cars 36 feet long, of 60,000 capacity each.

The power station will be near the center of the line, and will be equipped with two 800-kilowatt and one 500-kilowatt machine and six boilers provided with stokers.

Port Arthur & Houston.

Mr. James P. Ward, vice-president and general manager, writes from Port Arthur, Texas, to the MANUFACTURERS' RECORD in regard to changing the route of the Port Arthur & Houston Short Line by the way of Morgans Point and La Porte. He says: "We have not fully decided yet on what route we will take up after crossing Old river at Wallisville, as our engineers are now in the field investigating which will be the most and best practical routes into Houston by the way of those points. The name of our chief engineer is H. F. Faulkenburg. Mr. C. S. Clever is general contractor, with offices at 67 Houston Theater Building, Houston, Texas.

"We have at the present time 56 miles ready for construction, and will let bids within the next two weeks for the building of the same. We are working to that point, and we are assured we will be able to do so."

Large Order for Cars.

The Central of Georgia Railway, it is reported, will soon let another contract for nearly 1000 freight cars, the order including 400 flat cars, 50 ballast cars and 500 steel coal cars. As recently noted in the MANUFACTURERS' RECORD, the Central of Georgia is building a line to some rich coal lands in Alabama which are owned by the Tunnel Coal Co., and the new coal cars will doubtless handle the product from these mines.

A ROCK ISLAND PLAN.

Purchase of the Arkansas Southern to Use for a Through Line.

The purchase of the Arkansas Southern road by the Rock Island system is announced, according to dispatches from New York. The Arkansas Southern is 99 miles long from Eldorado, Ark., to Winfield, La., and it is said to be the purpose of the Rock Island to make it part of a through line from Traskwood, near Little

Rock, the link between Traskwood and Eldorado being now under construction. The Arkansas Southern is also building an extension from Winfield to Alexandria, La., and it is expected that a further extension from the latter point will be built. Geo. W. Hunter at St. Louis is president and treasurer of the Arkansas Southern, and W. H. Crouch, also of St. Louis, is secretary. H. C. Brown of Ruston, La., is vice-president.

Norfolk & Western's Report.

The annual report of the Norfolk & Western Railway for the fiscal year ended June 30 shows gross earnings \$24,089,260, increase as compared with the preceding year \$1,370,283; expenses \$14,614,434, increase \$941,106; net earnings \$9,474,826, increase \$429,177; total income \$9,685,398, increase \$492,517; surplus \$3,201,928, increase \$44,955. The length of line operated was 1799 miles, increase 76 miles. The total charges for construction, equipment and betterment were \$7,092,148. During the year 74 new industries were established along the company's lines, and at the end of the period there were 144 coal and coke companies in operation, 10,867 coke ovens were completed and 1195 were under construction. There were 14 iron coke furnaces in operation.

THROUGH THE BLUE RIDGE.

Johnson City Southern Line Already Under Construction to Marion.

William J. Oliver & Co. of Knoxville, Tenn., have been awarded the contract by the Southern Railway Co. to build the Johnson City Southern Railway from Johnson City, Tenn., to Marion, N. C., about 80 miles. Elkins & Co., subcontractors, have sent forces to Embreeville, Tenn., to begin work on the line. Much of this work will be heavy, as it crosses the Blue Ridge mountain. The company was incorporated early in the summer by officers of the Southern Railway, and a survey was speedily completed. At Marion, N. C., the road will again connect with the Southern Railway.

ORIENT TO MEXICO CITY.

Stillwell's Company Surveying for a Route From San Angelo, Texas.

Mr. M. P. Paret, chief engineer of the Kansas City, Mexico & Orient Railway Co., 705 Bryant Building, Kansas City, Mo., writes the MANUFACTURERS' RECORD confirming the report that the company has made a reconnaissance from San Angelo, Texas, southward, with a view to making a through line to Mexico City. He also says: "We are quite undecided as yet as to whether such a route will go by way of Del Rio or by way of Spofford Junction. Surveys now being made will probably decide this."

Miami to Sedalia.

The Central Railway Co. of Kansas City, capital \$1,500,000, has been chartered in Missouri to build a line 50 miles long from Miami, in Saline county, to Sedalia, in Pettis county. E. C. Wright of Kansas City is the principal stockholder, and the others are W. E. McCulley of Macon, W. S. Roberts of Chicago, T. J. O'Donnell of Kansas City, W. H. Smith of New York, E. D. Martin of Marshall, A. W. LaRose of Albany, N. Y.; S. P. Martin of Kansas City, F. M. Catlin of New York, T. F. Marshall of Blackwater and B. M. Reid of Kansas City.

Hagerstown to Waynesboro.

The Hagerstown & Waynesboro Electric Railway Co. has been incorporated at Hagerstown, Md., with \$100,000 capital to build a line about 12 miles long from Hagerstown to Waynesboro, Pa. The directors are Mayor A. C. Strite, D. Clay-

ton Gilbert, Walter D. Willson, Dr. E. A. Wareham and John W. Feldman, all of Hagerstown.

To Abolish Grade Crossings.

The Baltimore & Ohio Railroad Co. proposes to make extensive improvements in Baltimore, including the abolition of grade crossings, a number of which exist south of Camden Station. About \$500,000 will be spent for a new roundhouse at Riverside, in the southern part of the city.

Railroad Notes.

The Knoxville Traction Co. and the Knoxville Electric Light & Power Co. have completed their merger, and will hereafter be known as the Knoxville Railway & Light Co.

The Southern Railway has, it is reported, purchased several pieces of property at Chattanooga, Tenn., including the Stanton House, to provide a site for a new passenger station.

The American Locomotive Co. is completing at its Richmond branch 18 consolidation engines for the Chesapeake & Ohio Railway. They are being equipped with a new style engine brake made by the Westinghouse Company.

Mr. D. A. Langhorne, Lynchburg, Va., writes the MANUFACTURERS' RECORD denying the press report that he had purchased 32,000 acres of land in West Virginia for the Chesapeake & Ohio Railway. He says he has bought no property for the company.

According to a report from Wheeling, W. Va., an electric railway will be built from that city to Uhrichsville, Ohio, about 50 miles, which will connect with other trolley lines that will provide a through route by electric railway from Wheeling to Detroit, Mich.

The Florida East Coast Railway, according to a report from Miami, Fla., has graded nearly five miles of line on Key Largo for its proposed extension to Key West. There will be about 20 miles of line on Key Largo, where 300 hands are pushing the work.

The Pennsylvania Railroad has, it is reported, completed an extension of its navy-yard tunnel at Washington, D. C., which will be used for freight service after the new route to the Washington Union Station is put in operation. The tunnel will now be nearly 10 blocks long.

Mr. Willard Thomson, vice-president and general manager of the Baltimore, Chesapeake & Atlantic Railway, writes the MANUFACTURERS' RECORD denying a press report that the company would build an extension at Ocean City, Md. He says that it does not contemplate making any improvements there this year. It already has a modern station and train shed at Ocean City.

F. H. McGee, manager of the Georgia Car Works at Savannah and of the South Atlantic Car Works at Waycross, Ga., is reported as saying that the Central of Georgia Railway has ordered 450 cars to be built at the Savannah shops, besides 175 cars ordered by the Atlantic Coast Line. The car companies are also busy with a number of smaller orders, and furthermore are repairing 600 cars for the Coast Line.

The Gulf & Ship Island Railroad reports through Fisk & Robinson of New York for the month ended August 31 gross earnings, 1905, \$137,023; 1904, \$159,080. The decrease in gross earnings is caused by the falling off in passenger traffic, the result of the yellow-fever quarantine. The freight earnings show a substantial increase over the corresponding period of the previous year. The gross earnings from July 1 to August 31 were, 1905, \$310,873; 1904, \$300,861.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

A \$1,000,000 Paper-Pulp Mill.

Several weeks ago the MANUFACTURERS' RECORD referred to plans for the establishment of a big paper-pulp mill and the development of timber lands in connection therewith in North Carolina. During the past week further reports regarding the enterprise have become current. The Charlotte Observer states in part as follows: "The Thompson Pulp Co. has begun the erection of a plant about five miles from Clyde, in the mountains of Western North Carolina. It has secured about 300,000 acres of mountain lands, great forests of balsam, the kind of wood that will be used in making the pulp. The greater part of this land is 18 miles up the Pigeon river from the site of the mill, and the wood will be carried down by a flume 18 miles long, now being built at a cost of \$600 per mile. The factory will cover 20 acres of land and require 18 months to complete it, and the motive power will be electricity produced by water-power from Pigeon river, which has a fall of about 50 feet within two or three miles of the plant. The output of the factory will be made from 75 cords of wood daily. At first the pulp will be shipped to a paper mill controlled by the company in New York, but it is probable that in the future a paper mill will be added. The plant and equipment will cost \$1,000,000.

Erecting Saw-Mills.

Advices from Beaumont, Texas, announce that Messrs. Hughes & Wilson have begun the construction work on a saw-mill to be located on the Texas side of the Sabine river near the present terminus of the Jasper & Eastern branch of the Gulf, Colorado & Santa Fe Railway. The capacity of the plant will be 75,000 feet daily, and is designed to develop 10,000 acres of virgin timber land in that territory, which Messrs. Hughes & Wilson have recently purchased. It is expected to have the mill in operation within 60 days. Beside this enterprise, it is stated that other mills will be erected along the railway line between Kirbyville and the site of this plant, while as many as three mills will be located in Louisiana as soon as the eastern end of the road is in operation.

Enlarging Creosoting Plant.

Mr. W. R. J. Stratford, manager of the C. R. Cummings Export Co. of Galveston, Texas, announces that the company contemplates making extensive improvements to its creosoting plant for the treatment of timber. The plant has now in operation one cylinder with a daily capacity of 20,000 feet, and it is intended to install another cylinder of greater capacity, which will enable the plant to handle about 45,000 feet per day and necessitate the employment of a larger force.

Chair Manufacturers.

Chair manufacturers of the South met at High Point, N. C., last week and organized with the following officers: W. S. Milne, Cleveland, Tenn., president; S. L. Davis, High Point, N. C., vice-president; Mr. Cutler, St. Louis, Mo., secretary; John R. Myers, Thomasville, N. C., treasurer. A meeting to be held at Thomasville, N. C., will be called later to consider questions of interest to the manufacturers.

Purchased for Timber.

A dispatch from Windsor, N. C., states that Messrs. William Ashbaugh and Eldon John Conklin of Steuben county, New York, have purchased from William E. Uptegrove of New York city the Isle of

Man and Pine Island, comprising about 9000 acres, for a consideration of \$40,000. The properties are located between the Chowan and Roanoke rivers in North Carolina, and are valuable for their timber.

Alabama's Yellow Pine.

The Yellow-Pine Clearing-House, a branch of the Southern Lumber Manufacturers' Association, with headquarters in St. Louis, Mo., reports that because of the wet weather in July there was an involuntary curtailment of 7,748,401 feet of yellow-pine lumber in Alabama. Shipments of yellow-pine lumber from the State in July aggregated 25,144,168 feet.

Hickory Stumpage Offered.

The MANUFACTURERS' RECORD is advised by the Burgaw Manufacturing Co. of Burgaw, N. C., that it offers 40,000 feet of fine hickory stumpage, which can be sawed in 90 days to suit the trade. Lumber dealers or mill men who are interested are invited to write the Burgaw Company for particulars.

Hardwood Stumpage for Sale.

Practical saw-mill men who are in need of stumpage can obtain particulars regarding a large tract by addressing "Easy Terms," care of the MANUFACTURERS' RECORD. The tract offered contains hardwood, is located on new railroad, and the stumpage can be paid for when the lumber is sold.

Shipments of lumber from the port of Fernandina, Fla., during the month of August aggregated nearly 12,000,000 feet.

To Build Forgings Plant.

A complete modern iron and steel forgings plant is to be established at Richmond, Va. Its projectors are now completing the necessary arrangements, and hope to have the works in active operation before the first of the coming year. They will incorporate under the title of the Richmond Forgings Co. with a capital stock of \$100,000, all of which has been subscribed. The plant will be confined to the production of light work, such as railroad, locomotive, automobile, bicycle and typewriter castings, which are not at present manufactured in the South. The officers of the new company are from the Richmond Locomotive Works, and sufficiently experienced to undertake the introduction of this new industry. Jonathan Bryan will be president; W. R. Williams, the originator of the company, vice-president, and O. P. Reford, secretary-treasurer. The stockholders include, besides the officers, Messrs. H. A. Gillis, John Stewart Bryan and O. J. Sands, and it is stated that Frank Jay Gould of New York will be interested. The forgings plant will be located on Belle Island, which Mr. Gould practically owns. It was at first contemplated to locate in the old Trigg shipyard property, but it was decided the necessities of the company will demand greater facilities.

Wants Rolling Mill.

A correspondent of the MANUFACTURERS' RECORD writes that he wants to lease and eventually buy a small rolling mill, with power, for the manufacture of a specialty entering into marine and locomotive boiler construction. The process is new and effects a great saving of time and fuel, not to mention over half the usual labor, and it will enable the operator to pay a royalty (or rental) much in excess of the usual profits in rolling-mill operation on a small scale. The inquirer states that he is in a position to offer an exceptional opportunity to the owners of a small rolling mill. Letters addressed to "Rolling Mill," care of the MANUFACTURERS' RECORD, will be forwarded.

MECHANICAL

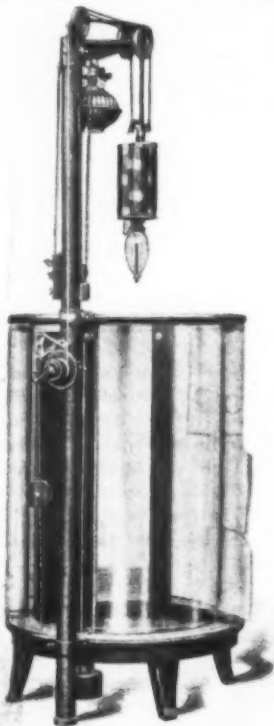
An Electric Blueprinting Machine.

An accompanying illustration shows an electric blueprinting machine. This has perfect contact, that essential point in blueprinting machines. Each one is equipped with two rollers, one on each side, which carry the contact curtain and are operated independently of each other, so that only one side may be used, and one side may be unloaded and reloaded while the other is printing.

The contact curtain is held firmly to the surface of the glass by means of weights attached to small wire cables engaging both ends of the rollers which carry the curtain.

By this arrangement perfect and even contact is secured over the entire surface of the glass, entirely removing the difficulty of only partial and uneven contact when springs are employed in or attached to the rollers.

There are no buttons or clamps or any mechanism whatever for fastening the curtain to the frame and holding it in place after it has been unrolled. The rollers will remain stationary at any point



ELECTRIC BLUEPRINTING MACHINE.

on the circle and the curtain back of the roller is in perfect contact with the glass regardless of how far it has been unrolled. The value of this arrangement cannot be overestimated in making small and medium size prints, and it positively prevents any slipping or shifting of either the tracing or sensitized paper.

The lamp furnished is especially constructed for photo-engraving and blueprinting work. It is of the long arc construction, transmitting a light rich in actinic or violet rays. Only one lamp is required to do the work, and it is furnished to operate with any voltage and either direct or alternating current. A rheostat is furnished with each lamp to adapt it to the current desired.

The pendulum governing the drop of the lamp through the glass cylinder is adjustable as to speed, thus removing the necessity of making more than one drop of the lamp at a printing, regardless of the condition of the tracing.

This will appeal to manufacturers, engineers and architects who keep their tracings on file for years, thus getting them crumpled, soiled and yellow with age, in view of the fact that blueprints made from

such tracings usually require a longer exposure than is necessary when printing from new clean tracings.

In making prints from new tracings the lamp should make the drop in about two minutes; very old and soiled tracings, three to four minutes.

The roller device is so constructed that the machine may be readily loaded and unloaded while the glass cylinder is in the vertical position. All arrangements for



ARCHER IRON WORKS' CHARGING BARROW.

tilting the frame to a horizontal position are dispensed with, thereby saving much time and a great deal of unnecessary labor.

The machine's simplicity is evident, and with reasonable care it is practically indestructible.

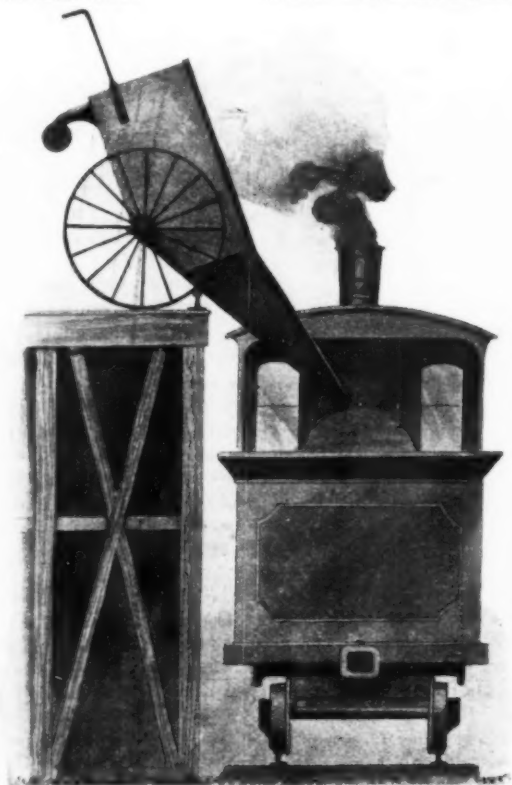
The operation of the apparatus calls for no skill whatever, requiring the attention of but one attendant in connection with his other work, and can be manipulated by a boy with as perfectly satisfactory results as by a skilled workman.

It is entirely self-contained, is fastened in no way to the wall, ceiling or floor, and is therefore easily removed from one place to another. It is completely wired ready to connect to the main wires.

The Archer Barrows.

Many manufacturers and operators of various kinds of industrial enterprises, railroad companies, contractors, mining corporations and others require charging barrows in their work. Barrows as designed and made by our modern manufacturers embody features that make them most convenient for the use for which they are intended, and a steady demand exists

for the best. Economy in time and money is effected by the use of perfected charging barrows, and progressive buyers in this field are invited to note the two accompanying illustrations of a charging barrow made by the Archer Iron Works of Chicago, Ill. The Archer barrows are built of the best obtainable steel for the purpose, and they are effective and durable. This is amply attested in the demand for them. As an instance it may be cited that one railway has within a few months sent the company five repeat orders aggregating 91 steel charging barrows for coaling locomotives. The Archer Iron Works also makes a complete line of steel wheelbarrows for all purposes, dump cars, coal and ore cars, oil-bearing car wheels, steel



ARCHER BARROW COALING A LOCOMOTIVE.

There is no expense connected with its operation other than the cost of carbons for use in the lamp, which amounts to about five cents per 100 hours, and the cost of the electric current consumed by this one lamp.

The Buckeye Engine Co. of Salem, Ohio, manufactures this electric blueprinting machine.

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trays, etc. Purchasers will find it to their advantage to confer with the Archer Iron Works before placing orders.

New Design Buffalo Forges.

The accompanying illustration shows one of a number of special Buffalo forges designed for the boiler shop of the new Lehigh Valley Railroad shops at Sayre, Pa. Conditions called for a heavy fire suitable for flange work, and which could be

adjusted in length from one to five feet, as well as to incorporate the down-draft feature in conformity with other forges installed by the Buffalo Forge Co. of Buffalo, N. Y. While there had been no precedent for a forge of this size, work such as springing locomotive frames, flanging crown sheets, tankheads, etc., being mostly heated in open-air fires, ovens or furnaces, these unusual requirements were mostly successfully met by the forge herewith described.

To obtain a fire adjustable in length a series of five heavy ball tuyeres were assembled on a heavy hearth-plate and provided with brick-lined firepots. Each tuyere being independent, with its own blast gate and clinker-freeing device, the fire is not only adjustable as to length, but can be separated into portions as desired and the intensity of all parts kept under control. A bed of fire six feet long, heavy enough to heat the largest shafts or forgings, can be maintained with ease.

As might be expected, the adaptation of the Buffalo down-draft system to this forge proved the most exacting feature of the design. To handle the waste gases, smoke, etc., the exhaust was placed immediately over the fire and two exhaust pipes provided, which acted at the same time as a support for the hood. For convenience in manipulating heavy work by overhead

work adds another step toward the emancipation of the forge shop from the unpleasant, unhealthy and unbusinesslike conditions which have characterized it in the past.

Cameron Pumps for Ice-Making and Refrigerating.

Probably one of the most severe tests of pumping machinery was made by the Ice & Cold Machine Co. at the ice-making and refrigerating plant, Louisiana Purchase Exposition, St. Louis, Mo., during the entire period of that celebration.

The photographic view in Fig. 1 shows two Cameron Boiler-Feed Pumps, 8x6x13, installed in the boiler-house and used for supplying two water-tube boilers of 750 horse-power.

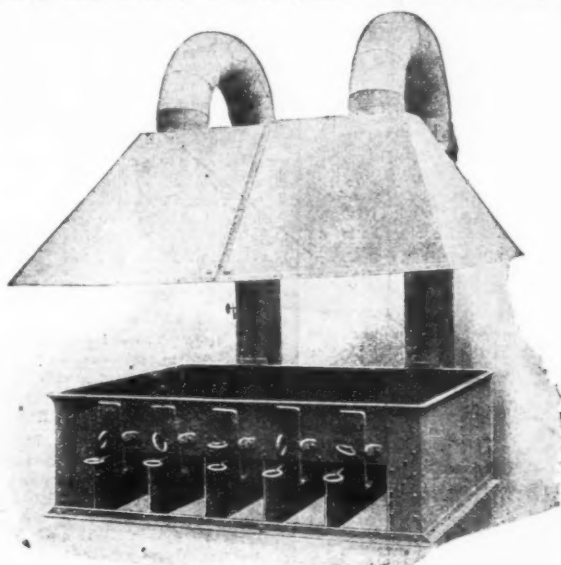
Fig. 2 shows two 10x9x18 Cameron Special Brine-Circulating Pumps of the light-service pattern, having long bodies and composition linings, which were also in operation at the above-mentioned plant and were used alternately in the refrigerating pipe line, which was claimed to be the longest continuous line in operation using brine as a refrigerating agent. These pumps were in constant use day and night during the entire time of operation, May 14, 1904, to the close of the exposition, December 3, of the 500-ton re-

can say that the service rendered by these pumps, both as boiler feeders and as brine pumps for the pipe line, was entirely satisfactory, and did not cause one minute's delay or shutdown from the time of starting in May until the final shutdown on the third day of December."

The pipe line was used by other parties for refrigerating between the above-men-

even more trying conditions, and readily recognized it by the acorn-shaped air chamber, the trade-mark of the genuine.

The pumps presented a very unique and picturesque appearance, owing to their being covered with a layer of frost. One old mining engineer's wife remarked: "Those pumps look like statuary and unlike the old station pumps at the mine



NEW DESIGN BUFFALO FORGES.

hoists it is necessary that such a hood should be easily swung clear of the fire. This has been simply effected by dividing the hood in halves and making each half swing about its own exhaust pipe, which is made amply strong to support its hood without tie rods or braces. The joint in exhaust pipe can be seen at the right of illustration, and also the roller bearings used to render the action sufficiently smooth and easy. There is also a false or second hood, which does not appear in the illustration, under the outer one. The air space thus provided prevents the outer hood from becoming unduly heated when a heavy fire is being carried.

As will be seen, the edges of forge are protected by heavy angle iron, preventing their being upset by careless handling of heavy work. Body of forge is three-sixteenths plate steel, the lightest metal used being No. 14 gauge. Forge stands 22½ inches high, and is seven feet long and five feet wide.

The production of this heavy-duty forge is notable for the fact that it presents a satisfactory substitute for open-air flange fires. Due principally to the down-draft system, latter-day forge shops are becoming as clean, well ventilated and presentable as any other branch of industrial work, and the introduction of a down-draft forge to take care of the heaviest class of

refrigerating machine, with the two ice tanks capable of making 120 tons of ice daily and cold-storage space of 100,000 cubic feet.

Brine at a temperature of 10 degrees above zero was put into the pipe line and pumped through the various and numerous refrigerator boxes, containing 60,000 cubic feet, at the German Tyrolean Alps, 7000 feet distant from the plant, the brine traveling through the pipe a distance of over 14,000 feet after leaving the pumps before returning to the brine coolers.

These pumps required but little attention from the busy engineers, and withstood the constant rack and severe strains to which they were subjected, owing to their high efficiency, perfect design and thorough construction, the secret of success of all Cameron pumps. Having automatic governors, they maintained continuously a constant pressure in the service pipe line, thereby making a uniform and regular feed to each and every refrigerating coil connected to the line, and they were so designed and constructed as to permit of the instantaneous opening of any of the large valves without detriment to the steam or brine cylinder heads. Mr. P. D. C. Ball, proprietor of the Ice & Cold Machine Co., is quite enthusiastic in their praise, and speaking from his own experience and for his company, says: "We

tioned points, but the connections and arrangement were such that no difficulty was experienced in getting proper circulation and without interfering with other boxes on the line. Adverse circumstances were experienced in putting in the line, owing to its location and the weather conditions. Sewers, electric conduits, water, gas and fire-line service pipes had to be crossed over or under, or the line laid parallel with them in many places, to say nothing of having swampy grounds, railroad crossings, the "River Des Peres" and minor difficulties to contend with. Many curious conditions were noted in operating the line owing to the fact of sewers breaking and emptying their contents on the line.

shaft which we have seen in service high on to 20 years."

To Rebuild Foundry Plant.

Some months ago it was announced that the Western Steel Car & Foundry Co. of Chicago had decided to rebuild its foundry department at Anniston, Ala. Manager H. H. McCord has now received orders to go ahead with the work, and will begin at once. The company will erect an entirely modern plant for making malleable cast-iron products, and will employ 150 skilled men in it when completed. About \$50,000 will be the cost of rebuilding and equipping. The former foundry of the company was destroyed by fire.

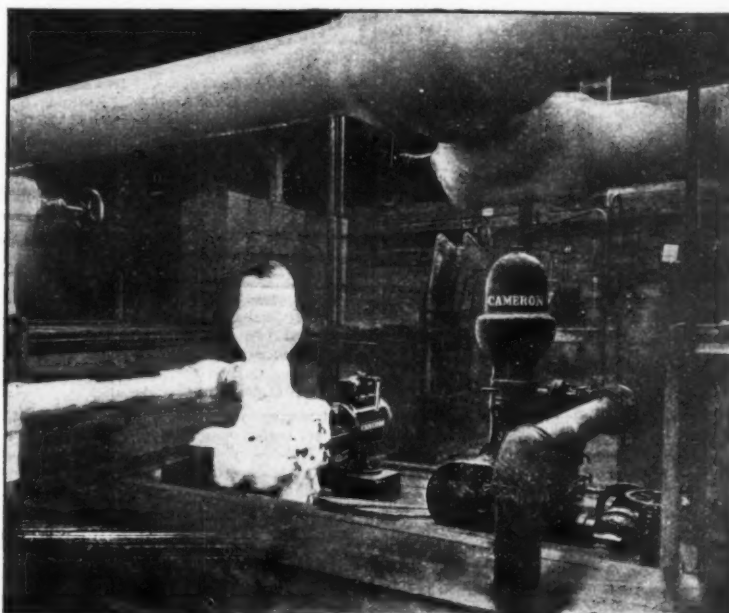


FIG. 2.—CAMERON PUMPS FOR ICE-MAKING AND REFRIGERATING.

heavy rains getting into the insulation and numerous other articles to overcome.

The plant was open day and night continuously from the opening to the closing of the exposition, and thousands of visitors were made welcome to inspect it. Many of them were familiar with the use of the Cameron pumps under different and

The Merrill-Stevens Shipbuilding Co. of Jacksonville, Fla., has, it is reported, closed a contract to build a seagoing molasses barge for R. Truffin & Co. of Havana, Cuba. The barge, which will carry 50,000 gallons of molasses in tanks, will be 110 feet long, 27 feet beam and 8 feet depth of hold.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from THE MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and more attention than a more circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Church.—Joseph Clendenin, president of the Presbyterian Association, 14 East Mt. Vernon Place, has purchased lot 290x150 feet at Denmore Park, Park Heights avenue, upon which will be erected chapel for Presbyterian congregation.

Baltimore—Dwelling.—Henry Snow, 311 Exchange Place, has purchased lot at Roland Park and is having plans prepared for the erection of frame dwelling.

Baltimore—Dwelling.—Revised plans have been distributed for the proposed residence to be erected at Mt. Washington for H. W. Webb, Maryland Telephone Building, Gladfelter & Chambers, John Cowan, 106 West Madison street; Israel Owens and Leonard Brown, 298 Huntingdon avenue, are estimating on the construction. J. Evans Sperry, architect, 609 Calvert Building, will receive estimates until September 12.

Baltimore—Church.—Charles L. Stockhausen, contractor, National Marine Bank Building, Gay and Water streets, has submitted an estimate for the erection of church at southeast corner of Lexington and Monroe streets, for which preliminary plans have been prepared, for the congregation of the Garrett Park Methodist Episcopal Church. Structure will be of stone and cover nearly the entire site, which fronts about 150 feet on Lexington street, with a depth of 80 feet; cost about \$25,000.

Baltimore—Lunchroom.—It is stated that Horace A. McSherry, attorney, 219 Courtland street, representing the Sternberg estate, contemplates the erection of building at 306 East Baltimore street suitable for lunchroom purposes for S. S. Childs. Lot has a frontage of 20 feet with 145 feet depth.

Baltimore—Dwellings.—Francis N. Donnelly, 2319 East Preston street, has awarded contract to James Couling, 1527 North Wolfe street, for the erection of 16 two-story dwellings at the corner of Ashland and Collington avenues. Lots have a frontage of 14 feet

with depth varying from 46 to 50 feet; cost about \$16,000.

Baltimore—Dwelling.—As bids for the construction of dwelling on the Harford road for Clifton Dietrich were too high, plans will be sent out to additional contractors for revised bids. William S. Schnabel is the architect.

Baltimore—Store Building.—Jas. J. O'Connor, 5 Lloyd street, and Henry S. Rippel, 7 Clay street, are additional bidders for the construction of store building which Theodore H. Diener & Co., 114 East Lexington street, will erect at 217 East Baltimore street, referred to last week. Contract will probably be awarded the first of next week.

Baltimore—Club Building.—The Clover Club, 1914 Madison avenue, has commissioned J. E. Laferty, Builders' Exchange Building, 2 East Lexington street, to prepare plans and specifications for the proposed improvements to be made to its building, referred to last week.

Baltimore—Dwellings.—J. B. Crawford, 114 South Broadway, has prepared plans and specifications for the erection of seven frame dwellings at Howard Park for T. E. Macken, 332 St. Paul street. Plans will probably not be sent out for estimates; construction will be done by day work; recently referred to.

Baltimore—Office Building.—Frank B. Smith, attorney, 509 Calvert Building, representing John Redwood, has purchased strip of land 7.3x64 feet at corner of Baltimore and Calvert streets. It is the purpose of Mr. Redwood to erect on this and the property adjoining a three-story office building.

Baltimore—Dwellings.—James E. Ingram, Sr., Pikesville, Md., has purchased about 35 acres of land on Park Heights avenue near Denmore Park and will probably develop it by erecting a number of cottages of concrete construction.

Baltimore—Fish Market.—Contract for the foundations of the municipal fish market, recently referred to, has been awarded to the Cranford Paving Co.

Baltimore—Business Building.—J. J. Hurst, 613 Calvert Building, has purchased leasehold interest in lot at 24 Center Market Space and will have plans made for its improvement.

Baltimore—Store Building.—Goldsmith Bros., 2127 Linden avenue, have commissioned Louis Levi, architect, Union Trust Building, Charles and Fayette streets, to prepare plans and specifications for store building to be erected at 25 East Baltimore street; structure to be three stories, 20x115 feet.

Baltimore—Dwellings.—Edward J. Gallagher, 2638 East Baltimore street, will erect five dwellings on Fairmount avenue near Lauzerne street; two stories, 14x50 feet; cost \$6500.

Baltimore—Warehouses.—Mrs. Mary Mylander, 511 North Carrollton avenue, has awarded contract to Wm. Saunders, 407 Calvert street, for the construction of three warehouses at 103, 105 and 107 West German street; five stories, 60x71.5 feet; brick with stone trimmings; steel girders; slag roofs; electric wiring and fixtures; sanitary plumbing; heating systems; elevators; cost about \$40,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore—Dwellings.—The Charles E. Spalding Company, 213 Courtland street, has purchased two lots, one on Milton avenue near North avenue and the other at northeast corner Payson and Monroe streets, and will erect 31 dwellings on the sites.

Baltimore—Storage Warehouse.—James E. Hooper, cotton manufacturer, Parkdale avenue, Woodberry, will erect storage warehouse at his cotton mill at Woodberry; one story, 49.6x122 feet.

Baltimore—Church.—Referring to Presbyterian church to be erected at Walbrook, A. K. Boteler, 1323 Myrtle avenue; Thomas L. Jones & Son, 410 West Saratoga street; Thomas B. Stanfield & Son, 109 Clay street, and John Cowan, 106 W. Madison street, are estimating on the construction; Mottu & White, architects, 328 North Charles street.

Baltimore—Solomon C. Hollander, 202 West Baltimore street, has purchased site in the vicinity of Druid Hill avenue and Whiteoak street, and, it is reported, has commissioned W. L. Minor, architect, 411 North Charles street, to prepare plans and specifications for an apartment-house to be erected.

Baltimore—Dwelling.—George H. Rogers has awarded contract to Arthur F. West, 217 South Gilmore street, for the construction of dwelling at Windsor Hills; two and one-half

stories; frame construction; cost about \$5000; J. E. Laferty, architect, Builders' Exchange Building, 2 East Lexington street.

Baltimore—Store Buildings.—Isaac M. Pruzman, 1094 East Baltimore street, has commissioned J. C. Spedden, architect, 509 South Pica street, to prepare plans and specifications for two store buildings to be erected on Baltimore street near Caroline; three stories, 32x50 feet.

Baltimore—Dwellings.—Albinus Schuck, builder, 3300 East Baltimore street, will erect seven dwellings on Hudson near Potomac street; two stories, 13x46 feet; cost about \$7000.

Baltimore—Office Building.—John E. Marshall & Sons, builders, Vickers Building, German near South street, will erect building at 121 Mercer street, to be used for its own offices; three stories, 17x40 feet; brick with stone trimmings.

Baltimore—Fieldhouse.—Joseph Schamberger, 2122 East Baltimore street, is the lowest bidder at his bid of \$19,896 for the construction of municipal field building at Patterson Park; one story high, 45x108 feet, with two wings, each 13.7x92.6 feet; brick and frame construction; slate roof; reinforced-concrete work; sanitary plumbing; electric wiring and fixtures and heating system not in contract; Wyatt & Nolting, architects, 2 East Lexington street. This building previously mentioned.

Baltimore—Produce Market.—J. Henry Miller, 110 Dover street, is the lowest bidder and will probably be awarded the contract by the Municipal Board of Awards for the construction of superstructure of produce market on Center Market Space. His bid was \$127,387, using Indiana limestone for ornamental work, and \$119,067, using terracotta. The Cranford Paving Co., Home Life Building, Washington, D. C., was awarded the contract for the construction of the foundations for the building at its bid of \$15,390; Simonson & Pietsch, architects, American Building, Baltimore and South streets. Full details concerning the building recently mentioned.

Baltimore—Fish Market.—Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, is the lowest bidder and will probably be awarded the contract for the construction of superstructure for the fish market by the Municipal Board of Awards. His bid was \$107,300, using Indiana limestone for ornamental work, and \$101,900, using terracotta; Simonson & Pietsch, architects, American Building, Baltimore and South streets. Full details concerning the building recently mentioned.

Baltimore—Hotel.—Wm. H. Weissager, 1009 East Baltimore street, has commissioned architect to prepare plans and specifications for a four-story hotel, 27x127 feet, to be located at southeast corner Baltimore and Front streets.

Baltimore—Dwellings.—George Gebelein, 823 North Chester street, will erect about 60 two-story dwellings on block bounded by Preston, Patuxent and Biddle streets and Kenwood avenue.

Baltimore—Dwellings.—Oldenburg & Kelly, 17 East Lombard street, have awarded contract to Jacob Peters, 411 St. Paul street, for the construction of about 60 two-story dwellings on Patterson Park and Collington avenues.

Manufacturing Buildings and Other Enterprises.

Baltimore—Vinegar Factory.—Referring to the proposed vinegar and cider factory to be erected at Bank street and Central avenue for Lewis Elmer & Sons, 417 East Lombard street, a lot 107x147 feet has been acquired, and Morris & Clifford, architects, 657 Calvert Building, have prepared plans and specifications for the necessary structures, comprising yeast factory to be 85x70 feet, three stories high; vinegar factory 85x50 feet, five stories high; warehouse 85x32 feet, two stories high; isolated boiler-house 17x38 feet; buildings to be of brick with slag roof; interior of mill construction.

Baltimore—Celluloid Novelties.—It is reported that John H. Richardson, attorney, Highlandtown, is representing interests purposing the incorporation of a company to erect a plant at Canton for the manufacture of celluloid novelties.

Baltimore—Terra-cotta Works.—The Maryland Terra-Cotta Co. has been incorporated with a capital stock of \$60,000; incorporators, John J. Kelly, Lexington and North streets; Henry G. Boyd and Alfred Tyler of Balti-

more, and Wilbur F. Thyson of the District of Columbia. The company has purchased the terra-cotta plant of the Burns & Russell Company at Wicomico and Clare streets, and will erect three or four kilns to double the capacity.

Baltimore—Repair Shop.—The Maryland Telephone & Telegraph Co., Maryland Telephone Building, Lexington and Courtland streets, has leased buildings at 632 and 634 West Pratt street and will equip them for the use of its mechanical department.

Baltimore—Clothing Factory.—Further details have been obtained concerning clothing factory for Henry Sonneborn & Co., 8-12 South Eutaw street, to be erected by the Sonneborn Realty Co. at Pratt, Pica and King streets; nine stories, 157.4x172.6 feet; brick with granite base and limestone or terracotta trimmings; steel-frame construction fireproofed with concrete and hollow tile; reinforced-concrete work; fire-escape; steel rolling doors; galvanized-iron cornices and skylights; revolving doors; metal frames and sashes; slag roof; sanitary plumbing; elevators, electric wiring, sprinkler system, heating system and lighting fixtures not in contract; cost about \$400,000. Henry S. Rippel, 7 Clay street; C. L. Stockhausen, National Marine Bank Building, Gay and Water streets; Morrow Bros., 212 Clay street; Henry Smith & Sons Company, 116 South Register street; Wm. Steele & Sons, 17 West Saratoga street; George Runnecke & Sons, 305 St. Paul street; George A. Fuller Company, American Building, Baltimore and South streets; J. H. Miller, 110 Dover street; John Hiltz & Son, 3 Clay street; Charles Gilpin, Union Trust Building, Charles and Fayette streets; Wells Bros. Company, Union Trust Building; Crump & Co., Hanover Building, 114 West Fayette street, all of Baltimore, and Thompson-Starrett Company, Commercial National Bank Building, 14th and G streets N. W., Washington, D. C., are among the builders estimating on the construction. Estimates to be in September 22; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore—Sounding-machine Plant.—A company has been organized with Olin Bryan, Union Trust Building, Charles and Fayette streets, president; Swenson Earle, secretary and treasurer, and W. Wylie Hopkins, vice-president, to manufacture a sounding machine patented by Mr. Earle.

Baltimore—Concrete and Masonry.—The Concrete & Masonry Construction Co. has been incorporated, with a capital stock of \$2500; incorporators, William R. Dorsey, 350-352 Equitable Building; John McKnight, Wilbur T. Haywood, William H. Fisher and Thomas H. Webster.

Baltimore—Contracting Company.—The Maryland Contracting Co. has been incorporated with a capital stock of \$6000 for the purpose of conducting contracting business and dealing in building material; incorporators, John H. Pinning, 749 East Preston street; Jacob Mueller, Jr., 1612 East Monument street; William M. Duncan, 707 Fidelity Building, Charles and Lexington streets, Reuben Garey and Thomas A. Swann.

Baltimore—Lunch Room.—The Elkridge Company has been incorporated with a capital stock of \$5000 for the purpose of conducting lunch room, restaurant and cafe business; incorporators, W. Sanders Carr, Jr., 854 West North avenue; Robert H. Horner, Richard L. Wedekind, 750 West Lexington street; Elizabeth Wedekind, George L. Mattingly and R. Lee Slingluff.

Baltimore—Jewelry.—The Castberg Jewelry Co. has been incorporated under the laws of Delaware with a capital stock of \$50,000 to deal in jewelry; incorporators, Joseph Castberg, Baltimore, Md.; John V. Hoffman, Pittsburgh, Pa.; Jacob Hollander, Wilkes-Barre, Pa.; E. B. Waples, Wilmington, Del.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Anniston—Lumber Company.—Chartered: The Hammonds Lumber Co., by T. R. Hammonds, W. O. Henderson and C. T. Bonaz.

Anniston—Iron Foundry.—The Western Steel Car & Foundry Co. is reported as about to begin rebuilding the malleable cast-iron foundry. About \$50,000 will be expended; H.

H. McCord, general manager; main office, Chicago, Ill. (This item was previously referred to in this department.)

Bessemer—Distillery.—It is reported that James Blue of Hoffman, N. C., will establish whiskey distillery.

Birmingham—Cotton-gin Machinery.—Robert Ross Zell will organize the Cotton Machinery Co. for the manufacture of an improved cotton-ginning machine recently invented; offices, First National Bank Building.

Birmingham—Manufacturing Sites, Terminal Facilities, etc.—The Birmingham Belt Railway, A. D. Lightner, general manager, has purchased 200 acres of land on Village creek for \$170,000. This property is to be developed by the establishment of freight terminals and the location of manufacturing enterprises of various kinds, and it is reported that Mr. Lightner is now negotiating with a well-known corporation regarding the expenditure of \$1,000,000 in the erection and equipment of a plant that will employ 1000 hands when completed and in operation. The development of this property will provide the most modern terminal facilities for the St. Louis & San Francisco and the Illinois Central railways, as well as the belt line.

Clinton—Ice Plant.—J. P. Van Derveer, P. O. Box 275, is arranging for the installation of ice-making plant.*

Gadsden—Cotton Gin.—W. L. Sampey and associates have purchased site on which to erect cotton gin, to consist of three 70-saw gins and be equipped with the latest and most approved system of elevators. The Etowah Gin Co. will be incorporated to operate the plant.

Gadsden—Telephone System.—City has granted franchise to W. H. Crumb and associates of Chicago, Ill., for the construction of telephone system, previously mentioned.

Jasper—Coal Mines.—The Gayoso Coal Co. has increased its capital stock from \$100,000 to \$500,000. It is stated that the company will enlarge its properties and increase the coal output.

Mobile—Abattoir.—It is reported that an abattoir will be established by the local butchers, and a committee has been appointed to investigate site for a plant to be built at a cost of about \$70,000. Harry T. Hartwell can be addressed.

Mobile—Saw-mill.—The McDonald Lumber Co. will erect building, 180x40 feet, of mill construction, and equip as saw-mill, replacing plant reported burned last week.*

ARKANSAS.

Altus—Electric-light Plant.—The Altus Gin, Manufacturing & Improvement Co. is installing electric-light plant.

Batesville—Drug Company.—The Batesville Drug Co. has been incorporated with \$8000 capital stock by A. J. Casey, T. B. Padgett, J. F. Huddleston, John A. Hinkle and associates.

Black Rock—Cotton Gin and Corn Mill.—Black Rock Gin Co., reported incorporated last week to operate a cotton gin, will erect a ginhouse 20x12 feet, seedhouse 18x24 feet and cotton-house 20x30 feet; daily capacity 14 bales of cotton. A corn mill will also be operated. About \$500 will be invested. J. T. Grady is president; C. H. Stout, vice-president; G. A. Hendry, secretary-treasurer. J. O. Lake is architect in charge. The installation of an electric-light plant is also being considered.*

Clarksville—Bakery.—Clarksville Steam Bakery Co. has been incorporated, with \$5000 capital stock, to operate bakery. A two-story building 50x70 feet will be erected and equipped for a daily capacity of 10,000 loaves of bread. G. Arndt prepared the plans. John N. Sarber, Jr., is president, and H. C. McConnell, treasurer.*

Hermitage—Stave and Lumber Mill.—The Laigle Stave & Lumber Co. has incorporated with \$25,000 capital stock to manufacture oak and pine lumber and staves; incorporators, M. J. Anders, P. F. Jones and D. A. Brodheur.

Imboden—Ice and Cold-storage Plant.—It is reported that C. G. Dent will establish an ice and cold-storage plant.

Little Rock—Heating Plant.—It is reported that the Little Rock Heating Co. will expend about \$30,000 in improvements to plant; \$25,000 to be utilized in purchasing new machinery.

Little Rock—Percolator Factory.—Charles Wightman, J. W. Bishop, W. H. Anderck and R. G. Ferguson have incorporated the Climax Percolator Co. with \$7500 capital stock to manufacture the W. B. A. coffee and water percolators, etc.

Little Rock—Saw-mill.—E. L. Parmenter of Menominee, Mich., reported last month as

investigating site for the location of saw-mill, will begin building about October 1. Machinery has been purchased.

Montreal—Coal Mines.—The Montreal Coal Co. has been organized with \$10,000 capital stock for the development of coal properties. G. H. McConnell of Fort Smith, Ark., is president; J. W. Moran of Montreal, vice-president and general manager, and E. G. Hickey of Fort Smith, Ark., is secretary-treasurer. Machinery has been purchased.

Mount Ida—Mining and Milling Company.—The Waterloo Mining & Milling Co. has increased capital stock from \$200,000 to \$500,000.

Texarkana—Cotton Company.—The Thompson Cotton Co. has been incorporated with \$25,000 capital stock by Floyd Thompson, B. I. Thompson and C. C. Taylor.

DISTRICT OF COLUMBIA.

Washington—Publishing.—Men of Mark Publishing Co. has been incorporated with \$30,000 capital stock by B. F. Johnson, T. C. Smith of Washington and E. L. Cockrell of Alexandria, Va.; office, 945 Pennsylvania avenue.

FLORIDA.

Jacksonville—Cigar Factory.—It is reported that John Dzialynski will establish cigar factory.

Jacksonville—Publishing.—Claude L'Engle, A. K. Taylor and associates contemplate organizing company for the publication of a weekly newspaper.

Jasper—Planing Mill and Dry-kilns.—The Jasper Manufacturing Co. will probably rebuild planing mill and dry-kilns reported burned; loss \$15,000.

Liberty County—Saw-mills, etc.—The Liberty Land Co. has been organized with C. Downing of Brunswick, Ga., president; B. W. Blount of Ocala, Fla., vice-president, and A. Fendig of Jacksonville, Fla., secretary-treasurer, to build saw-mills and develop 24,000 acres of pine-land in Liberty county recently purchased; capital stock \$20,000.

St. Marks—Timber-land Development.—It is reported that W. C. Varnadoe and associates of Moultrie, Ga., have purchased 25,000 acres of timber land near St. Marks for development.

Wacissa—Saw-mill.—H. H. Bacon of Savannah, Ga., it is reported, has purchased 7000 acres of timber land near Wacissa and will erect saw-mill.

West Palm Beach—Drainage, Canal, etc.—The Lake Worth Drainage & Construction Co. has been organized by Wm. Helm and associates. This company is reported as the lowest bidder and will be awarded contract by the Dade county commissioners for the drainage of Clear lakes and the reclamation of 30,000 acres of submerged lands west of West Palm Beach.

Welaka—Ice Plant.—W. M. Williams of Welaka and H. D. Williams of 209 Markly street, Jacksonville, Fla., will erect a six-ton ice plant. Size of building has not been determined, and neither architect nor engineer engaged.*

GEORGIA.

Adairsville—Water-works.—City is considering the installation of water-works. Address The Mayor.

Atlanta—Sewerage System.—The city will receive bids in about two weeks for the extension of proposed trunk sewer (approximately 10 feet in diameter) through part of the eighth ward; R. M. Clayton, city engineer.

Atlanta—Horse-collar Factory.—Chartered: Gate City Horse Collar Co., with \$25,000 capital stock, by W. D. Brock and others.

Atlanta—Woolen Mill.—Chartered: The Dixie Woolen Co., with capital stock of \$7500, by W. A. Tigner, H. Sheard and G. B. Murrell.

Colquitt—Water-works.—The city will hold an election to vote on the issuance of bonds for the construction of water-works. Address The Mayor.

Columbus—Street Paving.—The city will advertise for bids for paving three blocks of Broad street. Asphalt, brick and bitulithic paving will be considered. Alderman Camp is chairman of the street committee.

Columbus—Sand Mines, Concrete-block Factory, etc.—The Columbus Concrete Supply Co. has been chartered under the laws of Oklahoma with \$50,000 capital stock by J. F. Weathers, Ernest L. Hill and Frank M. Sutter to mine and place on the market roofing gravel, sand, etc., manufacture hollow concrete building blocks, cement and lime brick and engage in street-paving. The company has acquired large deposits of sand and gravel on Bull creek, three miles east of Columbus. A steam dredge with a capacity of between 10 and 20 cars daily will be in-

stalled for handling the sand and gravel, which will be pumped from the creek bed and thrown on large power-operated screens for grading the gravel to any desired size. Machinery has not been purchased.*

Columbus—Furniture Company.—J. B. E. Brown, W. M. Fleetwood and associates have incorporated the Brown-Fleetwood Furniture Co., with \$5000 capital stock, and privilege of increasing.

Gainesville—Drug Company.—E. P. Ham, O. A. McDermid, D. S. Denton, W. L. Logan and W. A. Palmour have incorporated the Piedmont Drug Co. with \$12,000 capital stock.

Jackson—Water-works and Electric-light Plant.—Town has voted the issuance of bonds for the construction of water-works and electric-light plant. J. B. McCrary, C. E. Senola, Ga., was previously reported as preparing plans and specifications.

Lagrange—Fertilizer Factory, Acid Chambers and Cottonseed-oil Mill.—The Troup Company is being organized with \$150,000 capital stock and privilege of increasing by A. H. Cary, J. M. Barnard, J. E. Dunson, Frank L. Hudson, W. A. Reeves, T. J. Thornton, J. H. Edmondson and associates to erect and operate fertilizer factory with an annual capacity of 12,000 to 15,000 tons, build acid chambers for the manufacture of sulphuric acid, erect and operate cottonseed-oil mill, etc.

Macon—Woodworking Plant.—T. C. Parker, L. R. Frohock and N. W. Parker have incorporated the Parker Tie Co. with \$10,000 capital stock to manufacture crossties, etc.

Rome—Cotton Mill.—The Anchor Duck Mills is reported as having purchased site for the erection of additional buildings; present equipment 500 spindles and 70 looms.

Savannah—Drug Company.—Incorporated: The Shuptrine Drug & Seed Co., with \$15,000 capital stock, by James T. Shuptrine, Herman C. Shuptrine and Francis E. Johnston.

Savannah—Corn and Rice Mill, Stables, Barn, etc.—The Chatham county commissioners are arranging to replace buildings on the county farm recently burned, to include mill with modern equipment for grinding and shelling corn, shelling, threshing and cleaning rice, stables, barn, etc., to cost \$10,000. The installation of electrical equipment in the mill is being considered. Plans for the buildings will be drawn in a few days. F. S. Lathrop is chairman of county commissioners.

Savannah—Electric-light-plant Improvements, etc.—The Savannah Electric Co. is making improvements and extensions to lighting plant, including the installation in lighting station of a 500-kilowatt two-phase 60-cycle 220-volt turbine, a surface condenser with wet and dry vacuum pumps capable of maintaining a vacuum of 28 inches under unfavorable conditions; turbine to be operated at present time with steam pressure of 130 pounds without superheat. An addition will also be made to the direct-current three-wire system supplying the business district of city, and new switchboard equipment for generators, feeders, exciters, etc., will also be installed. The company has also purchased wharf property between its station and the Savannah river, from which condensing water is taken and from which the coal supply is delivered. It is proposed to install a large pocket on the wharf for coal storage, with a conveyance system between it and the boiler-room. About \$100,000 will be expended in improvements. Stone & Webster, Boston, Mass., have charge of the improvements.

Tallahassee—Water-power-Electrical Plant.—It is reported that a movement is on foot to purchase all of the water-power at Tallahassee Falls for the purpose of power development, and G. L. Prentiss, 31 Nassau street, New York, N. Y., can probably give information.

Tifton—Water-works.—City will vote October 16 on the issuance of \$30,000 of bonds for the construction of water-works. Address The Mayor.

Tifton—Sash, Door and Blind Factory.—E. L. Vickers, W. M. Thurman of Tifton, S. Harrell of Staunton, Ga., and C. H. Goodman of Ticeknor, Ga., are organizing company with \$25,000 capital stock for the manufacture of sash, doors, blinds and to operate a general variety works.

Washington—Water-power-Electrical Plant.—It is stated that J. H. Fitzpatrick has optioned the Anthony Shoals Milling Co. property at Anthony Falls and has arranged with Eastern capitalists for the organization of a stock company to develop the water-power and build an electric plant for transmitting the power for the operation of industrial enterprises. Engineers have examined the falls recently and report that 20,000 horse-power can be developed. Reports state that \$1,000,000 will be invested in the enterprise.

KENTUCKY.

Dawson Springs—Land Improvement.—It is reported that Peter Arlund of Louisville, Ky., representing Eastern capitalists, will purchase the Dawson Springs property and improve as resort. Options are reported as being taken on all the wells in the city, and a large fountain is to be installed at the Springs, the water being brought from the wells to the fountain by hydraulic pressure. About \$1,000,000 will be expended.

Hopkinsville—Creamery.—It is reported that R. E. Sturgis of Allegan, Mich., contemplates the establishment of creamery.

Hyden—Coal and Timber Lands.—It is reported that a St. Louis (Mo.) syndicate has purchased through T. M. Morrow of Winchester, Ky., 8000 acres of coal and timber land in Leslie county at \$150,000. It is stated that the land contains a mixture of cannel and bituminous coal.

Louisville—Foundry.—The American Machine Co. has secured permit for the erection of proposed buildings; foundry building to be one story, 42x160 feet; building for finishing department to be two stories, 25x36 feet.

Louisville—Street Paving.—Board of Public Works will receive bids until September 22 for paving and repairing 52 different sections of the city streets; cost \$10,000. Bids will also be advertised shortly for asphalt work on certain streets involving an expenditure of \$20,000.*

Louisville—Acetylene-gas Machines.—Stine & Osborn Company, reported incorporated in July with \$10,000 capital stock to deal in acetylene-gas machines, has completed organization with J. W. Stine of Pewee Valley, Ky., president and treasurer, and L. C. Osborn of Louisville, vice-president and secretary; office, 156-158 East Main street.

Paducah—Steel-wheel Factory.—It is reported that Green B. Raum of Chicago, Ill., and J. G. Carroll of Grand Rapids, Mich., are investigating with a view to establishing a \$50,000 wheel factory. Patents have been obtained for new parts on steel wheels.

Stubblefield—Telephone System.—The Citizens' Telephone Co. has been incorporated by H. A. Walston, H. I. Batts, D. A. Brown and associates.

Tyrone—Distillery.—It is reported that Ezra, Ernest and Catlett Ripley are arranging for the erection of whiskey distillery.

Williamsburg—Water-works.—Surveys are being made for the installation of proposed water-works; supply to be obtained from the Cumberland river, one mile above town. Address Town Clerk.

Winchester—Novelty Company.—The Winchester Novelty Co. has been incorporated with \$10,000 capital stock.

LOUISIANA.

Lake Charles—Irrigation Plant, etc.—It is reported that the North American Land & Timber Co. is completing arrangements for developing lands in Cameron county for the cultivation of rice. Contract has been let for dredging a canal from Sweet lake for 2½ miles, where a pumping plant capable of lifting 20,000 gallons of water per minute will be installed to pump water from the dredged canal into an overland canal for irrigating the land adjoining, which will be laid out in rice farms.

New Orleans—Rice Mill, etc.—The Seward Milling Co. has been organized with \$125,000 capital stock to take over and operate the plant of the David & Crescent Rice Mill Co. A. H. Seward is president, and J. P. Campbell, secretary and general manager.

New Orleans—Coal-mining.—Louisiana-Alabama Coal Co. has incorporated with \$200,000 capital stock to mine coal, etc. Samuel B. McConico is president; Sam W. Bowman, vice-president, and Walter W. Girault, secretary-treasurer.

MARYLAND.

Brunswick—Electric-light and Power Plant. A company has been organized by Dr. H. S. Hedges, J. T. Martin, C. R. Gregory, William Schnauffer, G. T. Hogan, H. M. Jones, F. E. Alder and Z. T. Brantner to operate the Brunswick extension of the Harper's Ferry Electric Light & Power Co., the electricity to be obtained from Harper's Ferry, W. Va. Previous mention has been made in these columns of the construction of water-power-electrical plant at Harper's Ferry.

Cumberland—Gas-plant Improvements.—The Cumberland Gaslight Co. is reported as to make extensive improvements to plants, including the installation of a Lowe water-gas generating apparatus, 60-horse-power boiler and engine of the steam-turbine pattern.

Frostburg—Ice Plant.—Reports state that W. L. Scofield contemplates building an ice factory.

Hagerstown—Drug Factory.—The Aughinbaugh Drug Co. has incorporated with \$100,000 capital stock to manufacture pharmaceutical specialties, preparations and physicians' supplies; incorporators, William C. Aughinbaugh, Roger T. Edmonds of Hagerstown, Andrew Campbell of Johnstown, Pa.; Wm. E. Turner of Louisville, Ky., and James D. Edmundson of Des Moines, Iowa.

Midland—Coal Mines.—The Consolidation Coal Co. is reported as making arrangements to open a six-foot vein above No. 5 mine, increasing the present capacity; Baltimore (Md.) offices, Continental Trust Building.

Ocean City—Development Company.—The Ocean City Development Co. reported incorporated last week under Delaware laws with \$300,000 capital stock, has completed organization with John W. Woodland, president; E. S. Johnson, vice-president; W. D. Allen, secretary (all of 211 North Liberty street, Baltimore, Md.). The company has purchased the Atlantic and Seaside hotels, electric-light plant, laundry plant, 400 building lots at Ocean City, and will arrange for the resort's further development by the erection of cottages and hotels, build a pier several hundred feet into the ocean, erect bulkheads along the entire bay front, reclaim a large area of marsh land, improve Baltimore avenue as driveway, etc. W. S. McKean will be general manager of the company.

MISSISSIPPI.

Cuevas—Lumber Company.—Incorporated: The Cuevas Lumber Co., with \$5000 capital stock, by W. A. Cuevas and associates.

Meridian—Steel Bridge.—B. A. Wood is engineer in charge of the construction of steel bridge reported last week to be built across 27th street by the Mobile & Ohio Railroad; cost \$10,000 to \$12,000.

Meridian—Road-building.—The board of supervisors of Lauderdale county has authorized the issuance of \$100,000 of bonds to construct 10 miles of good roads in four directions from the city. It is stated that either Bessemer slag or sand and clay will be used.

Newton—Telephone System.—City has granted franchise to E. E. Grasset and J. J. Mott, Jr., to construct and operate telephone system.

Newton—Street Improvements.—City will arrange at once for improving streets, for which \$10,000 of bonds have been voted. Address The Mayor.

Ruleville—Light, Ice and Coal Company.—W. G. Barner, G. W. Searcy and others have incorporated the Ruleville Light, Ice & Coal Co. with \$20,000 capital stock.

Tutwiler—Ice Factory.—It is reported that W. A. Crawley of Clarksdale, Miss., will erect a 20-ton ice factory.

Wesson—Water-works.—City will hold an election to vote on the issuance of \$22,000 of bonds for the construction of water-works, previously mentioned. Address The Mayor.

MISSOURI.

Aurora—Flour Mill.—Majestic Milling Co., reported incorporated last week with \$100,000 capital stock, has completed organization with M. L. Coleman, president; N. H. Scott, vice-president, and M. T. Davis, secretary-treasurer. The company will erect and operate flour mill with a daily capacity of 500 barrels. Neither architect nor engineer have been engaged.*

Carterville—Foundry and Supply Company.—Incorporated: The Miners' Foundry & Supply Co., with \$50,000 capital stock, by H. C. Cole, Charles P. Wallace, O. H. Schoenhess and others.

Caruthersville—Cottonseed-oil Mill.—Missouri Cotton Oil Co. has been incorporated with \$50,000 capital stock by F. J. Cunningham, W. A. Ward and H. C. Schult to operate cottonseed-oil mill.

Chaffee (P. O. Rockview)—Railroad Terminals.—The St. Louis & San Francisco Railroad has had plans prepared by its architect, C. M. Roquette, for a 15-story brick roundhouse 90x124 feet; two-story office building 51x72 feet, of press brick, Carthage stone trimmings and tile roof; one-story station 31x117 feet, of buff press brick, Carthage stone trimmings and tile roof; freight depot 60x100 feet, of frame covered with iron; gravity coal chute about 300 feet long; division and terminal switchyard with 43 tracks and a local switchyard. Contract for the construction work has been let to the Chaffee Development Co. It is estimated that about \$300,000 will be expended by the railroad company.

Chaffee (P. O. Rockview)—Townsite.—The Chaffee Real Estate Co. (general office, 1607 Chemical Building, St. Louis, Mo.) has purchased 2100 acres of land in Scott county which will be developed as townsite by the

construction of stores and dwellings, the location of manufacturing plants, etc. Telford macadam streets, with concrete curbs and gutters, are being constructed, water-works and electric-light plants installed and sewerage system constructed.

Kansas City—Construction Company.—The Central West Construction Co. of Kansas City and Marshall, Mo., has been incorporated with \$100,000 capital stock by George H. Collins, F. A. Baxley of Kansas City and W. P. Hall of Perkins, Mo.

Clayton—Electric Company.—The Wooley Electric Co. has been incorporated with \$25,000 capital stock by W. D. Wooley, E. C. Hencken and Frederick Esseen.

Kansas City—Chemical Works.—The Wilda Chemical Co. has been incorporated with \$100,000 capital stock by G. M. Brannaman, A. H. Norris, S. O. Norris and others.

Kansas City—Manufacturing.—Incorporated: Delaware Manufacturing Co., with \$6000 capital stock, by W. J. Moriarty, R. A. Laughlin and Charlotte Moriarty.

Kansas City—Skating Rink.—F. R. Rose & Co. are reported as to establish an ice-skating rink; floor to be 130x150 feet.

Lamar—Publishing.—Arthur Aull, B. G. Thurman, N. Bassett and others have incorporated the Lamar Democrat Publishing Co. with \$5000 capital stock.

Springfield—Printing and Manufacturing.—John A. Templeman, James A. Bowers and John R. Whittitt have incorporated the Ozark Printing & Manufacturing Co. with \$12,500 capital stock.

St. Louis—Paper-box Factory.—Anchor Novelty Manufacturing Co. has incorporated with \$17,500 capital stock to manufacture and sell cartons, folding boxes and all kinds of paper specialties; incorporators, George A. Cibulka, Bennet Palmer, William G. Cibulka and George A. Cibulka, Jr.

St. Louis—Manufacturing.—The Newcomer Manufacturing Co. has been incorporated with \$20,000 capital stock by S. A. Newcomer, A. F. Hanning of St. Louis, Mo., and L. M. Reed of Kirkwood, Mo.

St. Louis—Bank Fixtures.—St. Louis Bank Fixture Co. has been incorporated with an authorized capital stock of \$100,000 by William S. Rex, George P. Rex, John A. Burton and others to manufacture bank fixtures.

St. Louis—Construction Company.—Bambrick Bros. Construction Co. has been incorporated with \$50,000 capital stock by John F. Bambrick, P. W. Bambrick and John F. Healey.

St. Louis—Mineral and Oil Lands.—Second National Mine Operating Co. has been incorporated with \$100,000 capital stock by F. C. Swartz, Jay E. Boyd, Jr., C. H. Rath and G. G. Powell to develop mineral and oil lands.

St. Louis—Composition Paving, Roofing, etc.—Bramlage Construction Co. has incorporated with \$10,000 capital stock to manufacture all kinds of composition paving, roofing, fireproofing, etc.; incorporators, James M. Rohan, Charles A. Gewe, Albert H. Gehner and Albert Goetz.

Unionville—Brick and Tile Works.—P. M. Moore, Lee Collins and S. H. Jackson have incorporated the Unionville Brick & Tile Co. with \$50,000 capital stock.

NORTH CAROLINA.

Ashboro—Printing Plant.—The Courier, W. C. Hammer, editor, previously reported as having purchased site on which to build addition, will erect building 25x36 feet.*

Canton—Paper-pulp Mill.—It is reported that Peter G. Thompson of Hamilton, Ohio, will build the paper-pulp mill recently referred to in this department. He has obtained 300,000 acres of mountain lands, containing principally balsam wood, which will be cut and carried to the plant by flume 18 miles long and costing \$600 per mile, now in course of erection. The pulp plant will occupy 20 acres of land, and is to be of large capacity. Its product will be shipped to New York for manufacture into paper, and later on a paper mill will probably be built at Canton. A water-power will be developed and power will be transmitted by electricity for operating the new plant. It is reported that \$1,000,000 will be the cost of the plant and equipment. Mr. Thompson is at present registered at the Battery Park Hotel, Asheville, N. C.

Charlotte—Clothing and Shirt Factory.—W. S. Bradley, W. E. Bradley and Frank H. Bradley have incorporated the Bradley Manufacturing Co., with \$250,000 capital stock, to manufacture clothing, shirts, etc.

Charlotte—Candy Factory.—G. W. Painter Company has amended charter, changing name to the Cotton Belt Candy Co. and increasing capital stock from \$10,000 to \$30,000.

Fair Bluff—Real Estate.—James W. Pow-

ell, George A. Powell, A. G. Floyd and W. E. Meares have incorporated the Carolina Land & Investment Co. with \$30,000 capital stock.

Fayetteville—Suspender Factory.—The Kelly Suspender Co. has removed plant from Carthage, N. C., and reorganized company with F. H. Cotton, president; C. J. Cooper, vice-president; J. H. Judd, secretary-treasurer, and E. V. Kelly, general manager. The capacity will be increased.

Fayetteville—Cement-block Machinery.—It is reported that E. A. Poe (brick manufacturer) will install machinery at plant for the manufacture of cement blocks.

Fayetteville—Railroad Repair Shops.—It is reported that the Atlantic Coast Line Railroad will build repair shops. E. B. Pleasants, Wilmington, N. C., is chief engineer.

Fayetteville—Basket and Crate Factory.—It is reported that the Fayetteville Lumber & Manufacturing Co. will install machinery for making lettuce baskets and truck crates.

Greensboro—Suburban Development.—It is reported that the American Suburban Corporation, with headquarters at Norfolk, Va., has acquired through J. J. Millikan, president Carolina Real Estate & Investment Co., 135 acres of land situated 1½ miles from Greensboro, and will establish a suburb. It is proposed to divide into 700 building lots, establish park, extend city water mains, etc.

Henderson—Mineral Water.—The Buckhorn Lithia Water Co. has been incorporated with an authorized capital stock of \$100,000 by J. A. Kelly, R. H. Hood of Henderson, B. S. Watkins, Amy Y. Watkins and B. T. Hicks of Bullock, N. C., to bottle and sell mineral water; daily capacity 2100 gallons.

High Point—Veneering Company.—The Hill Veneering Co. has been organized with \$10,000 capital stock by Carl Hill and associates.

Louisburg—Electric-light Plant.—City is considering the establishing of electric-light plant. Address The Mayor.

North Carolina—Saw-mills.—E. J. Conklin of Canisteo, N. Y., has purchased large tracts of timber land in North Carolina from William E. Uptegrove, Jr., New York, N. Y., and it is stated will erect saw-mills for its development.

Oxford—Buggy Factory.—Moses King, Jesse King, Claude King and Ben K. Lassiter have organized as King Bros. Buggy Co., to manufacture buggies. A building has been secured and machinery will be installed at once.

Polkton—Cotton Gin, Saw and Planing Mill.—S. K. Harris has purchased and will operate the local cotton-ginning plant. It is stated that a saw and planing mill will be operated in connection.

Raleigh—Box and Veneer Works.—American Box & Veneer Co. has been incorporated with an authorized capital stock of \$100,000 by Jesse G. Ball, Charles B. Park, T. B. Womack, J. S. Mann and associates to manufacture and deal in boxes, caddies, crates, etc. The company will make a specialty of the manufacture of plug-tobacco boxes invented by Mr. Field.

Shelby—Ice Factory.—Marion Putnam, C. B. Suttle and J. L. Suttle, it is reported, contemplate establishing an ice factory.

Spray—Cotton-thread Mill.—The American Thread Co. has been organized for the manufacture of fine cotton and woolen yarns. Mule spindles will be operated.

Washington—Ice Plant.—Reports state that H. R. Bright contemplates erecting a 25-ton ice plant.

Wilmington—Naval Supplies.—Chartered: D. McEachern Company, with \$14,000 capital stock, by D. McEachern, Alexander O. McEachern and John S. McEachern to deal in naval stores.

Wilmington—Development Company.—The Carolina Trucking Development Co. has been incorporated with an authorized capital stock of \$500,000 by Hugh MacRae & Co., E. W. Van C. Lucas, Walter G. MacRae and associates.

Wilson—Ice Plant.—J. Alvin Clark, it is reported, will erect a plate ice-making plant.

SOUTH CAROLINA.

Beaufort—Ice Plant.—R. A. Long will erect addition, 51x112 feet, to ice plant and install 20-ton ice machine. About \$30,000 will be invested.*

Darlington—Spoke and Handle Factory.—The Darlington Spoke & Handle Co. has been incorporated with \$2500 capital stock by J. R. Daniel and D. T. McKelthan.

Fingerville—Cottonseed-oil Mill.—It is reported that a cottonseed-oil mill will be established, and that B. Liles, president Fingerville Manufacturing Co., is interested.

Gaffney—Flour and Grist Mill.—W. Sam Lipscomb is reported as erecting flour and

grist mill; a rock dam is also being built. Machinery has been ordered.

Georgetown—Chemical Works.—The Carolina Chemical Co., previously reported incorporated with \$3000 capital stock, has completed organization with Olin Sawyer, president and general manager; R. M. Barnes, vice-president, and E. L. Lloyd, treasurer.

Georgetown—Electric-power Plant.—Win-yah Traction & Power Co. has been incorporated with an authorized capital stock of \$100,000 by J. B. Steele, W. W. Taylor, E. W. Kaminski, W. H. Andrews and L. Mouson to erect and operate electric-power plant.

Greenville—Monazite Mines.—Eureka Monazite Co., previously reported incorporated with \$10,000 capital stock, has completed organization with C. C. Good, president; Samuel Stradley, secretary; Wm. Goldsmith, Jr., treasurer, and George A. Browning, manager. The company will mine monazite, having a weekly output of two tons.

Spartanburg—Transfer Company.—The City Transfer Co. has been organized with \$5000 capital stock. W. R. Gaffney is president; W. M. Ward, manager, and Otto Zabel, secretary-treasurer.

Sumter—Automobile Company.—Chartered: Sumter Automobile Co., with \$3000 capital stock. H. J. Harby is president and treasurer; Perry Moses, Jr., vice-president, and I. C. Strauss, secretary.

Yorkville—Mercantile.—Chartered: The Thomson Company, with \$15,000 capital stock and privilege of increasing to \$50,000. John F. Love is president, and Jas. F. Thomson, treasurer.

TENNESSEE.

Chattanooga—Water-works Improvements. It is reported that the City Water Co. contemplates extending mains to Rossville, a suburb of Chattanooga.

Chattanooga—Cotton Gin.—Chartered: Quinton Ginning Co., with \$10,000 capital stock, by G. N. Henson, C. E. Kirkpatrick, E. M. Ellsworth, W. B. Riddell and J. H. Block, to operate a cotton gin.

Chattanooga—Mercantile.—Chartered: H. L. Davis Company, with \$5000 capital stock, by H. L. Davis, C. E. Kirkpatrick and associates.

Chattanooga—Chair Factory.—The Chattanooga Chair Co., reported last week as having purchased the plant of the Orange Grove Lumber Co., which would be remodeled as chair factory, will erect an addition 50x70 feet. Chairs and dimension stock will be manufactured. O. K. Wilcox is president, and W. F. Wahman, secretary.*

Chattanooga—Steam Laundry.—It is proposed to organize company for the establishment of a co-operative steam laundry. For information address Lock Box No. 109.

Chattanooga—Publishing.—Chartered: The Building News Co., with \$5000 capital stock, by A. W. Boyd, J. M. Queen, J. H. Cantrell, J. B. F. Lowery and H. Bushnell, to publish the Building News.

Chattanooga—Water-power-Electrical Plant. The plans for the lock, dam and power-house of the Chattanooga-Tennessee River Power Co., referred to last week, have been received from the War Department, and it is stated the bids of contractors will be considered soon. Dam will be of stone and concrete; foundation of heavy stone, weighing as high as five tons, to be handled by modern hoisting machinery; dam 22 to 62 feet high, 1200 feet long, 50 to 65 feet wide at bottom; top, eight feet wide; lock and approach walls 630 feet long, 60 feet clear on inside, walls 58 feet high, base width from 30 to 46 feet, width at top 5 to 25 feet; a tunnel will extend the length of dam 6½x2½ feet in dimension; power-house proper 60x25 feet; to carry 14 generators; three turbine wheels on each shaft; 42 turbine wheels in all, each of 2250 kilowatts; plant to be erected on embankment 700 feet long; embankment to have outside wall of concrete and stone, six feet thick and four feet above highest flood mark. A spur track three miles long will be constructed from the Nashville, Chattanooga & St. Louis Railway to the site of this construction work in order to convey the machinery and materials; Col. John Bogart, 16 Exchange Place, New York, engineer in charge.

Clarksburg—Iron Furnace.—It is reported that the Red Rock Iron Co. will put in blast within 30 or 60 days the Helen iron furnace, which has been undergoing repairs; annual capacity 45,000 tons of pig-iron. This company was previously reported in these columns as incorporated to operate the Helen iron furnace.

Elizabethton—Trousers Factory.—It is reported that the Island Pants Co. will double the capacity of plant.

Erin—Agricultural-Implement Factory.—Erin Manufacturing Co. has been organized

with \$10,000 capital stock to manufacture wooden and steel hay balers of one horsepower. A building 88x10 feet will be erected. E. W. Rascher is president, and E. R. Partridge, secretary-treasurer. This company was reported last month as being organized.

Fayetteville—Cotton Mill and Electric Plant.—It is reported that the Elk Cotton Mills will develop the water power of Elk river, erect an electric plant to transmit the power by electricity and build a cotton mill. Eastern capitalists are said to be interested in the plans and contemplate issuing bonds.

Halls—Telephone System.—J. H. Bibb, G. N. Grear, L. F. Adams, E. Abernathy and A. B. White have incorporated the Nankipoo & Edith Telephone Co. with \$1500 capital stock for the construction of telephone system from Halls to Edith, Tenn.

Jackson—Woolen Mill.—Jackson Woolen Mills will rebuild at once its burned plant destroyed last week at a loss of \$100,000. A temporary location has been secured and a permanent building will be erected. Contracts have been awarded for all the new machinery except electric-lighting plant and elevators.*

Johnson City—Knitting Mill.—W. B. Johnson will establish a knitting mill. He has ordered the machinery for manufacturing hosiery.

Knoxville—Woodworking Plant.—A company has been organized by J. Cal. Sterchi, H. L. Roberson, J. W. Crudginton and M. W. Wilkins to establish plant at Proctor for the manufacture of sideboards and hatracks. A site has been secured on which to erect a three-story building. Mr. Roberson will be president and general manager.

Memphis—Saw-mill.—The Green River Lumber Co., Station E., reported last week as having begun building saw-mill, is erecting building 40x120 feet after plans by Fred Brendie. About \$30,000 will be invested.*

Mt. Pleasant—Fertilizer Factory.—Geo. W. Killebrew, M. E. Wheeler and associates will organize company with \$80,000 capital stock for the establishment of fertilizer factory, referred to last month. A site has been secured and arrangements are being made for the erection of the necessary buildings. About \$50,000 will be invested. Machinery will be operated by electricity.

Nashville—Grain and Elevator Company.—O. W. Childs, W. C. Eddy, James Douglas, P. M. Combs, J. J. Gibson and associates have incorporated the Nashville Grain & Elevator Co. with \$6000 capital stock.

Nashville—Cotton Mill.—Chartered: The Warlike Cotton Mills, with capital stock of \$200,000, by Jo B. Morgan, Joseph H. Thompson, William Nelson, Edwin Warner and M. J. Smith. This company will carry out the plans of Mr. Morgan and associates, which were referred to recently. They will convert the Tennessee Manufacturing Co.'s mill into a thoroughly modern plant, but are not to take possession for some time.

Nashville—Coffee Company.—The Cheek & Neal Coffee Co. has been incorporated with \$300,000 capital stock by Leslie Cheek, W. C. Owen, R. S. Cheek, A. H. Goodall and L. T. Cheek.

Paris—Tobacco Cultivation.—It is reported that Henry Antrim of McKenzie has purchased 1600 acres of land in Henry county at \$10,000. It is stated that 900 acres will be utilized in the cultivation of high-grade tobacco and the balance to be sold for farming purposes.

Sewanee—Publishing.—The University Press of Sewanee, Tenn., previously reported incorporated with \$20,000 capital stock, has completed organization with A. C. Watkins, president and treasurer; W. H. DuBose, vice-president, and A. R. Gray, secretary. An addition 25x50 feet will be erected to building.*

South Pittsburg—Planing Mill.—C. A. D. Paris & Co. are reported as completing arrangements for the erection of proposed planing mill. The most improved machinery and equipment will be installed and the building supplied throughout with automatic fire sprinklers.

TEXAS.

Austin—Water-works and Electric-light Plant.—It is reported that the city is considering an appropriation of \$10,000 for improving water-works and electric-light plant; John H. Robinson, Jr., member of water and light commission.

Brenham—Telephone System.—A company is being organized with C. W. Bohne, president, and Dr. Wm. Knolle, secretary, to build a telephone system.

Brownwood—Gas Plant.—The Federal Gas Co. of Washington, D. C., has applied for 20-year gas franchise.

Clyde—Cotton Gin.—Farmers' Gin Co. has

been incorporated with \$6000 capital stock by J. L. Tabor, L. M. Tyler, J. P. Graves and others.

Cuero—Steel Bridge.—It is reported that the Southern Pacific Railway will build a steel bridge across the Guadalupe river in connection with its Stockdale-Cuero extension, the contract for the construction of which has been let to W. O. Robinson, San Antonio, Texas.

Del Rio—Publishing.—W. C. Easterling, Jones Pennington, Walter Gillis, Albert Warner and associates have incorporated the Del Rio Publishing Co. with \$3000 capital stock.

Eagle Pass—Electric-light and Power Plant. Texas-Mexican Electric Light & Power Co. has increased its capital stock from \$20,000 to \$40,000.

El Paso—Street-paving.—Arrangements will shortly be made for paving the streets with brick, for which \$175,000 of bonds was voted. Address The Mayor.

Farmersville—Cotton Gin.—Farmers' Union Gin Co. has been incorporated with \$6000 capital stock.

Fort Worth—Cottonseed-oil Mill.—Chartered: The Stockmen's Cotton Oil Co., with J. P. Daggett, president; W. W. Sloan, Jr., vice-president; E. W. Pressley, secretary and general manager; William Anson, treasurer, to operate cottonseed-oil mill; capital stock \$60,000. The company has begun the construction of proposed buildings, to include an 80-ton oil mill; storage warehouse 70x250 feet, capable of storing 7500 tons of seed; hullhouse 60x180 feet, etc. Machinery has been purchased. The company will also build large cattle-feeding pens with a capacity for 50,000 head.

Fort Worth—Harness Factory, Tannery, etc.—T. R. James & Sons have begun the erection of proposed saddlery, harness and collar manufactory. Two buildings will be erected, one to be two stories, 80x150 feet, and the other one story, 80x100 feet. A tannery will also be established in connection.

Fort Worth—Reservoir.—The Liversedge Bridge Co. is the lowest bidder at \$12,900 and will probably be awarded contract for building proposed 2,000,000-gallon reservoir.

Fort Worth—Hardware Company.—Incorporated: Alston Gowdey Hardware Co., with \$10,000 capital stock, by Alston Gowdey of Fort Worth, H. Rob Keeble of Dallas, Texas, and W. R. Keeble of Abilene, Texas.

Fort Worth—Oil Wells.—George W. Armstrong, R. C. Armstrong, Jr., and R. M. Colgin have incorporated the Old Field Oil Co. with \$20,000 capital stock.

Fort Worth—Electric-light and Power Plant and Steam-heating Plant.—It is reported that Sam Davidson and associates have applied for franchise to construct and operate electric-light and power plant and steam-heating plant.

Fort Worth—Concrete-block Factory.—The Perfection Concrete Stone Co., reported incorporated last month with \$10,000 capital stock to manufacture concrete building blocks, will also manufacture building stone, curbstones, porch columns, window sills, sewer pipe, etc. Sheds for drying blocks, warehouse for storing cement and office building made of cement blocks will be erected. R. L. Dunivant is president, and J. M. Mothershead, secretary-treasurer.*

Fort Worth—Electric-light, Gas and Steam-heating Plants.—The Consumers' Light & Heating Co. has been incorporated with \$100,000 capital stock to operate electric-light, gas and steam-heating plants. A building 40x80 feet will be erected. Geo. W. Armstrong is president; H. C. Edrington, treasurer; J. D. Luttrell of Fort Worth, Texas, is engineer in charge, and E. H. Abadin & Co. of St. Louis, Mo., architects. All electrical machinery and appliances have been purchased. (G. W. Armstrong was reported recently as having secured franchise to construct and operate electric-light, gas and steam-heating plants.)*

Fort Worth—Public Improvements.—The North Fort Worth Townsite Co. has let contract for laying 2800 feet of six-inch water mains in North Fort Worth. It is stated that about \$10,000 will be expended in improvements in this section, including the building of cement sidewalks and cement curbing.

Galveston—Creosoting Plant.—It is reported that the C. R. Cummings Export Co. will increase the capacity of its plant for the treatment of timber by the installation of an additional cylinder with a daily capacity of 25,000 feet, making the daily output of plant 45,000 feet. W. R. J. Stratford is manager.

Galveston—Saw-mill.—Beaumont Saw-Mill Co. has incorporated with \$250,000 capital stock to operate a saw-mill; Incorporators, C. H. Moore, A. W. Miller, C. S. V. Alton of Galveston, W. S. Slagley of Alton, Iowa, and James G. Berryhill of Des Moines, Iowa.

Gause—Lumber and Hardware Company.—Incorporated: Gause Lumber & Hardware Co., with \$3000 capital stock, by R. F. Pool, J. R. Frain, Jr., and J. P. Sparks.

Gonzales—Electric-light and Power Plant. Citizens' Electric Light & Power Co. has increased its capital stock from \$5000 to \$10,000.

Houston—Log and Lumber Company.—F. G. Bleker, H. H. Everest and Percy Allen have incorporated the Texas Log & Lumber Co. with \$1000 capital stock.

Hubbard—Cottonseed-oil Mill.—Hubbard Cotton Oil Co. has incorporated with \$50,000 capital stock to construct and operate cottonseed-oil mills, etc.; Incorporators, J. B. McDaniel, W. B. Barnes, J. V. Matson, Eugene McDaniel, W. O. Mullins, T. C. Morgan of Hubbard and J. F. Myrick of Irene, Texas.

Houston—Oil Wells.—J. S. Jarrell, John T. Royle, F. B. West and L. B. Moody have incorporated the Phoenix Oil Co. with \$10,000 capital stock to drill for oil.

Huntsville—Orchard Company.—Incorporated: Stiles-Branch Orchard Co., with \$30,000 capital stock, by E. P. Stiles and associates.

Jacksonville—Ice Plant.—The Jacksonville Ice Co. will rebuild ice plant reported burned last week.

Jasper—Lumber Company.—Sandy Creek Lumber Co. has been incorporated with \$10,000 capital stock by C. N. Seale, George E. Hedley and W. E. Trotter.

Kirbyville—Saw-mill.—Hughes & Wilson have begun the construction of proposed saw-mill to have a daily capacity of 75,000 feet. This company has recently purchased 10,000 acres of virgin timber land in this section.

Llano—Lumber Company.—The Western Lumber Co., and not the Westland Lumber Co., is the correct title of company recently reported incorporated with \$6000 capital stock. G. M. Smith is president; L. C. Smith, vice-president; Wilbur Oatmar, secretary-treasurer, and W. C. Foote, manager.

Midland—Gin and Power Company.—Midland Gin & Power Co. has been incorporated with \$5000 capital stock by Burl Holloway, F. F. Gary, S. W. Estes, G. F. Cowden and T. B. Wadley.

Nacogdoches—Saw-mill and Pumping Station.—It is reported that T. J. Williams, president of the Nacogdoches Showcase Co., and the Nacogdoches Oil & Development Co. will erect hardwood saw-mill and a pumping station connecting the producing oil wells with the pipe line.

Orange—Oil-storage Tanks and Pumping Plant.—The Orange & Northwestern Railroad Co. has let contract to W. G. Park of Beaumont, Texas, for the construction of a system of storage tanks, capacity of 10,000 barrels. A pumping plant will also be installed with a capacity for unloading 20 cars of oil in 12 hours.

Orange—Sewerage System.—Reports state that W. D. Bettis, secretary Progressive League, is corresponding with parties relative to the installation of a sewerage system.

Palestine—Ice and Cold-storage Plant.—The Palestine Ice, Fuel & Gin Co. will increase its capital stock from \$100,000 to \$200,000, and it is stated will enlarge ice plant, increasing the capacity from 50 to 100 tons daily and install cold-storage plant.

Rusk—Cotton Compress.—J. R. Irion, it is reported, has purchased site on which to locate cotton compress.

Sabine—Lumber Company.—Incorporated: Allen Powell Company, with \$24,000 capital stock, by C. R. Cummings, Frank Allen and W. C. Huff, to deal in lumber.

Sherman—Street-paving and Water-works Improvement.—City contemplates issuing \$30,000 of bonds for paving streets and extending water mains. Address The Mayor.

VIRGINIA.

Alexandria—Gas Plant, etc.—The Tidewater Fuel & Gas Manufacturing Corporation has incorporated with \$50,000 capital stock to manufacture gas, coke, tar, etc. A. D. Shrewsbury is president; F. D. Blackstone, vice-president (both of Alexandria), and A. Georgman of Washington, D. C., secretary-treasurer.

Boydton—Lumber Manufacturing.—Virgilina Lumber & Manufacturing Co. has incorporated with \$50,000 capital stock to deal in and manufacture lumber, etc. John Ford is president; W. W. Tuck, vice-president (both of Virgilina, Va.), and E. E. Cockrell of Boydton, secretary-treasurer.

Esserville—Coal Mines and Coke Ovens.—Esser Coal & Coke Co. has incorporated, with \$60,000 capital stock, to mine coal and manufacture coke. G. H. Esser of Dorchester, Va., is president, and C. C. Hyatt of Norton, Va., secretary-treasurer.

Hartwood—Telephone System.—The Hart-

wood & Fredericksburg Telephone Co. has been incorporated with \$10,000 capital stock to construct and operate telephone system. D. J. Shopoff of Storck, Va., is president, and C. J. Henry of Hemp, vice-president.

Lynchburg—Hardware Company.—Perrow-Evans Hardware Co. has incorporated with \$75,000 capital stock. R. M. Perrow is president; C. M. Perrow, vice-president, and D. S. Evans, secretary-treasurer.

Marengo—Mercantile.—The Marengo Trading Co. has been incorporated with \$10,000 capital stock. J. O. D. Gholson of Red Lawn, Va., is president, and A. S. Bustard of Invermay, Va., secretary-treasurer.

Newport News—Ice Plant.—It is reported that the Citizens' Railway, Light & Power Co. will erect building and install additional machinery, increasing the capacity of plant.

Norfolk—Manufacturing.—Incorporated: Davidson-Zimmerman Company, with \$10,000 capital stock, to manufacture and deal in women's wearing apparel. F. W. Zimmerman is president; David Hoffman, vice-president (both of Norfolk), and S. C. Davidson, secretary-treasurer, New York, N. Y.

Norfolk—Real Estate.—The Co-operative Real Estate & Investment Co. has incorporated with an authorized capital stock of \$30,000. O. E. D. Barron is president and manager; A. Johnston Ackiss, vice-president, and C. E. Parker, secretary-treasurer.

Norfolk—Bridges.—The Tidewater Railway Co., Raymond DuPuy, Haddington Building, general manager, has let contract to Bates & Rogers, Chicago, Ill., for the construction of piers for double-track bridges over the southern and eastern branches of the Elizabeth river at Norfolk at a cost of about \$200,000. Sanford & Brooks, 715 North Calvert street, Baltimore, Md., have been awarded contract for the pile-driving. This item was previously mentioned in this department.

Petersburg—Ice Company.—People's Economy Ice Co. has been incorporated with \$50,000 capital stock to erect and operate ice plant. Joseph Lambert of Warfield, Va., is president; J. Spooner Epes, vice-president; J. M. Quick, Jr., secretary, and Morris Levy, treasurer.

Port Haywood—Ice Factory.—It is reported that Marion C. Burroughs will establish a 20-ton ice plant.

Richmond—Steam Laundry.—B. M. Florsheim has had plans prepared by C. Ruehrmond, 918 East Main street, for laundry building; to be two stories, 50x60 feet, and cost \$4000.

Richmond—Trading Company.—Atlantic Trading Co. has incorporated with an authorized capital stock of \$350,000. J. M. Miller is president, and D. Aylett, secretary-treasurer.

Roanoke—Brick Works.—Roanoke Clay Manufacturing Co., reported incorporated last week, will manufacture brick of all kinds. A main building 40x100 feet and engine and boiler-room 40x30 feet will be erected. Machinery has been purchased; capital stock \$30,000.

Rockfish—Gold Mines.—It is reported that gold deposits have been discovered on the property of J. J. Hughes near Rockfish, which will probably be developed.

WEST VIRGINIA.

Bramwell—Jewelry, etc.—Stanley J. Peters, E. J. Meyers and associates have incorporated the Stanley J. Peters Company with \$10,000 capital stock.

Charleston—Coal Mining.—Chartered: The Crab Orchard Improvement Co., with \$1,000,000 capital stock and C. J. Wittenberg of New York, N. Y., president. The company has taken over the property of the Crab Orchard Land Co., containing over 10,000 acres of New River coal, which will be developed.

Charleston—Real Estate.—Grosscup-Myers Realty Co. has been incorporated with \$40,000 capital stock by R. C. Franklin, Fred Paul Grosscup of Charleston, P. S. Grosscup of Chicago, Ill.; F. E. Myers and P. A. Myers of Ashland, Ohio.

Charleston—Coal Mines.—Kanawha Block Coal Co. has been incorporated with \$15,000 capital stock to mine splint-block coal, having a daily output of 500 tons. S. Simpkin is president; A. E. Washburn, secretary, and J. B. Ramage, treasurer; office, Suite 75 and 76 Bradford Building.

Fairmont—Oil and Gas Wells.—The Angola Oil & Gas Co. has incorporated with \$50,000 capital stock to drill for oil and gas; Incorporators, John J. Cornwell, W. B. Cornwell, J. S. Zimmerman of Romney, W. Va.; John J. Nash of Parkersburg, W. Va., and A. E. Kenny of Grantsville, W. Va.

Grafton—Glass Factory.—Hood Phillips, George H. A. Hunst, Frank P. Brown, Saml. F. Feasler and associates have incorporated

the Empress Glass Co. with \$50,000 capital stock to manufacture and deal in glass.

Logan—Coal Mines.—It is reported that the Kimberly Land Co. of Williamson, W. Va., has purchased a 1000-acre tract of coal land near Logan. This land adjoins a 3000-acre tract purchased some months ago by the company. Arrangements will probably be made for its development. John A. Shepard is president.

Morgantown—Coal Mines.—It is reported that J. V. Thomson has purchased the Repert-McCormick tract of 5000 acres of coal land on North Ten Mile creek, and arrangements will probably be made for its development. It is stated that \$500,000 was the purchase price.

Morgantown—Development Company.—Cheat Road Development Co. has been incorporated with \$100,000 capital stock by John M. Gregg, James S. Stewart, J. Leonard Smith, J. Frank Nelson, Ed Herd and J. M. Callahan.

Parsons—Water works.—The city has granted franchise to W. T. Robinson, superintendent of the pulp mill, for the construction of water works.

Paden City—Iron and Steel Works.—Watson Iron & Steel Co. has been incorporated with \$100,000 capital stock by George C. Brown of Paden City, Harry Watson, John A. Emery, Jr., and James P. Watson of Saltsburg, Pa., to manufacture and deal in iron and steel. Watson Bros. were mentioned in these columns last April as having leased and would operate the local steel plant.

Sistersville—Publishing.—John H. McCay, Walter A. Moore, Mamie H. Glass, John P. Glass and Clifford S. Church have incorporated the Review Publishing Co. with \$25,000 capital stock.

Welch—Coal Mines and Coke Ovens.—Jed Coal & Coke Co., recently organized with \$200,000 capital stock, is completing arrangements for mining coal and manufacturing coke on Tug river near Welch. It is proposed to build 165 coke ovens. W. A. Lathrop of Philadelphia, Pa., is president.

Wheeling—Brick Works.—Chartered: West Virginia Silica Block Co., with \$10,000 capital stock, by Emil Hallgren, K. O. Yertzell, W. B. Williams, Wm. Hall of Wheeling and Leonard H. Sherwin of St. Louis, Mo., to manufacture brick, etc.

Wheeling—Realty Company.—Incorporated: The Wheeling Realty Co., with \$100,000 capital stock, by A. B. McGarrell, Richard Ryan, W. D. Scott and associates.

Wheeling—Bridge Construction.—The Belaire-Benwood-Wheeling Bridge Co. has applied for and will receive franchise for the construction of proposed bridge. John A. Howard represented the company. Clem Smith of Wheeling, W. Va., has made necessary street surveys.

Wheeling—Toy Factory.—Mann Novelty Co. has incorporated with \$10,000 capital stock to manufacture and deal in toys; incorporators, Wheeler N. Bachman, John T. Rankin, Thomas O'Brien, Jr., John J. P. O'Brien of Wheeling and George R. Mann of Cleveland, Ohio.

INDIAN TERRITORY.

Comanche—Ice Plant.—E. O. Benson of Providence, R. I., it is reported, will build a 20-ton ice plant.

Garvin—Saw-mill.—It is reported that a Chicago capitalist has purchased from J. W. Kirk 100 acres of land for development. It is stated that a saw-mill will be erected at a cost of \$25,000.

Lehigh—Terminals, Roundhouses, etc.—It is reported that the Western Railway Co. (formerly the Oklahoma Central Railway Co.) will erect terminals and roundhouses. R. L. McWillie is chief engineer.

Tulsa—Wagon Works.—It is proposed to establish plant for the manufacture of wagons, and E. T. Tucker, secretary Tulsa Manufacturers' Association and Traffic Bureau, can probably give information.

OKLAHOMA TERRITORY.

Geary—Ice Plant.—It is reported that Charles Hatje contemplates building an ice plant.

Guthrie—Fireproofing and Sewer-pipe Works.—Incorporated: Monarch Fireproofing & Sewer Pipe Co. of Guthrie and St. Marys, Pa., with \$300,000 capital stock, by G. V. Pattison of Guthrie, B. Knox McClosky and Curtis L. McClosky of St. Marys, Pa.

Hollis—Cotton Gin.—The Union Gin Co., reported incorporated last month with \$500 capital stock, has completed organization with J. F. McMurtry, president; J. B. Gardner, secretary, and J. M. Prock, treasurer. A building 20x60 feet, with 23-foot walls, will be built. L. L. Martin is architect.

Kingsfisher—Salt Mines.—The Southwestern Salt & Mining Co. of Kingsfisher and Pomeroy, Ohio, has been incorporated with \$16,000 capital stock by E. C. Spillman and Felix L. Winkler of Kingsfisher, P. L. Clifton, Joseph P. Bradbury, Charles McQuigg, Charles E. Peoples of Pomeroy, Ohio; Fred Hartwig of Fort Thomas, Ky., and associates.

Mangum—Buggy Company.—C. P. Hamilton, W. T. Funderburk and J. D. Sentell have incorporated the Greer County Buggy Co. with \$4000 capital stock.

Oklahoma City—Brick Works.—It is reported that J. A. Moss and J. W. Farrier, Jr., of Bonham, Texas, will establish plant for the manufacture of white pressed brick.

Oklahoma City—Publishing.—The Post Publishing Co. has been incorporated by W. C. Pitcher, B. A. Pitcher and N. E. Pitcher.

Oklahoma City—Shoe Factory.—L. D. Fowler is reported as to establish plant for the manufacture of shoes equipped with pneumatic soles. About \$25,000 will be invested.

Pawhuska—Electric-light, Ice Plant and Water works.—The Pawhuska Electric Light, Ice & Water Co. has been incorporated with \$25,000 capital stock by H. H. Brenner, W. C. Tucker, W. T. Leahy, P. J. Monk and C. N. Prudom. J. E. Gibson of Pawhuska, J. W. McLoud of Little Rock, Ark., and Beeks Erick of Fort Wayne, Ind.

Pawhuska—Oil Wells.—H. H. Brenner, W. C. Tucker, W. T. Leahy, P. J. Monk and C. N. Prudom have incorporated the Pawhuska-Cleveland Oil Co. with \$100,000 capital stock to drill for oil.

Shawnee—Grain Elevator.—It is reported that H. C. Thompson of Whitewater, Kan., will erect a grain elevator at a cost of \$25,000.

Snyder—Cottonseed oil Mill.—It is reported that the Paxton Hardware Co. will install a 35-ton cottonseed-oil mill.

Willow—Telephone System.—Incorporated: The Willow Telephone Co., with \$1000 capital stock, by L. C. Cousins, J. W. Berry, R. E. Neever and associates.

BURNED.

Atlanta, Ga.—The Atlanta Tanning & Manufacturing Co.'s plant; loss \$25,000.

Bassfield, Miss.—The Bassfield Lumber Co.'s dry-kiln.

Chattanooga, Tenn.—The Cincinnati, New Orleans & Texas Pacific Railway Co.'s freight depot; Wm. Doyle, Somerset, Ky., superintendent bridges and buildings.

Clarksville, Tenn.—Northington Hotel; loss \$5,000.

Danville, Va.—George E. Coleman & Co.'s tobacco warehouse.

Ennis, Texas.—J. L. Whitfield's cotton gin. Forney, Texas.—Tom Layden's warehouse; loss \$4000.

Franklinton, La.—Job Tiffin's saw-mill; loss \$3000.

Hamburg, Ark.—The Harris Hotel; loss \$3000.

Knoxville, Tenn.—Knoxville Coffin Co.'s plant; loss \$25,000; Knoxville Wood Fiber Plant Co.'s plant, damaged \$5000.

Lexington, Ky.—Lexington Railway Co.'s repair shop; loss \$5000.

Lumpkin, Ga.—Pinkston & Borus' cotton gin; loss \$6000.

Manassas, Va.—Borden Bros. & Co.'s stove factory; loss \$4000.

Overton, Texas.—The Overton Mattress Co.'s factory.

Richmond, Va.—Wright-Caesar Company's tobacco factory; loss \$21,000.

Stamp, Texas.—J. G. Reichle's cotton gin.

Stamp, Texas.—J. G. Reichle's cotton gin.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Aiken, S. C.—Church.—W. H. Hite has contract to erect proposed edifice for the Catholic congregation after plans by MacMurphy & Storey of Augusta, Ga.; building to be of brick and stone and cost \$20,000.

Amarillo, Texas.—Church.—O. G. Roquemore has completed plans for the First Baptist Church's proposed edifice; to be 82x78 feet, of pressed brick trimmed in white sandstone and light buff brick; auditorium to have a seating capacity of 600. Electric lights will be installed.

Appalachia, Va.—Bank Building.—Bank of Appalachia, organized with Dr. R. W. Holly, president, will erect bank building.

Augusta, Ga.—Warehouse.—Davidson &

Fargo have secured permit to erect proposed warehouse; cost \$8377.

Barnwell, S. C.—Warehouse.—Frank H. Creech, Geo. W. Peacock, Willis J. Duncan, H. W. Richardson and Sam Halford have incorporated the Barnwell Farmers' Warehouse Co. with \$3000 capital stock.

Baton Rouge, La.—Lodge Building.—Bids are being received for the erection of lodge building for the B. P. O. E. Lodge 490, for which Charles H. Charlton, Jr., was reported last week as having prepared plans; to be two stories of brick with pressed-brick front, 53x150 feet, equipped with gymnasium, natatorium and general baths. Low-pressure steam-heating plant and electric lights will be installed; cost \$25,000.

Beaumont, Texas.—Warehouse.—James Ansell, Houston, Texas, has contract to rebuild warehouse and sales office for the Swift Packing Co., reported burned last month; to be of fireproof brick construction and cost about \$50,000.

Beaumont, Texas.—Church.—Bids addressed to Geo. O. B. Millard, chairman building committee, will be received until September 20 for the erection of church for the Methodist congregation. Certified check for \$500, payable to the chairman, must accompany each bid. Plans and specifications can be obtained at the office of F. S. Glover & Son, architect, 329 Mason Building, Houston, Texas, or by applying to Geo. O. B. Millard, Beaumont. Usual rights reserved.

Birmingham, Ala.—Office Building.—It is reported that a 15-story office building will be erected, and Brown Bros. & Co. and Otto Marx & Co. are interested.

Birmingham, Ala.—Hotel.—R. D. Burnett, it is reported, has leased the Florence Hotel and will expend about \$40,000 in improvements.

Birmingham, Ala.—Depot.—The Birmingham Terminal Co. has accepted plans by P. Thornton Marye, Atlanta, Ga., for building depot previously reported; to be two stories, entirely fireproof, of brick, stone and terra-cotta, have marble floors and cost about \$1,000,000. Walter Harrison will be engineer in charge.

Birmingham, Ala.—Store Building.—P. E. Bostick has contract to erect five-story brick building for Mrs. L. P. Hudgins after plans by Wheelock, Joy & Wheelock; building to be finished in galvanized iron and buff stone and cost \$43,000.

Birmingham, Ala.—Store Building.—G. D. Smith will erect a three-story brick building at a cost of \$12,000.

Boydton, Va.—Town Hall.—Town will furnish plans and specifications to contractors who wish to make estimates or bids on the erection of town hall complete; building to be two stories, of brick, fireproof construction, equipped with hard-coal furnace for hot-air heating, and cost \$6000 to \$7000. Wm. C. West, 1103 East Main street, Richmond, Va., prepared the plans; W. L. Clack, committee on building. (This item was referred to last week.)

Boydton, Va.—Office Building.—B. F. Smith Fireproof Construction Co., Washington, D. C., has contract to erect fireproof clerk's office for Mecklenburg county, previously reported; cost \$7500.

Bryson City, N. C.—Jail Building and Courthouse Improvements.—Commissioners of Swain county have let contract to B. F. Smith Fireproof Construction Co., Washington, D. C., for erection of jail building and addition to courthouse; cost \$10,000.

Buchanan, Ga.—Bank Building.—W. A. McCalman will shortly begin the erection of a bank building; to be of brick and concrete, 20x80 feet.

Cave Springs, Ga.—Bank Building.—The Bank of Cave Springs will arrange at once for the erection of building.

Ceredo, W. Va.—Business Block.—J. R. Gleske has prepared plans and specifications for a four-story 41x88-foot pressed-brick and steel business block to be erected by A. J. Brumberg of Ironton, Ohio.

Chaffee (P. O. Rockview), Mo.—Bank Building.—The Chaffee State Bank has let contract to the Chaffee Development Co. for the erection of a two-story brick building 50x80 feet.

Charleston, W. Va.—Hotel.—St. Albert Hotel Co. has been incorporated with \$10,000 capital stock by D. C. Kennedy, A. J. Thomas, Sarah Melton and associates.

Clarksville, Tenn.—Market-house and Office Building.—Plans and specifications will be prepared at once for a market shed and office building, for which \$7500 has been appropriated by the city. Address The Mayor.

Durham, N. C.—School Building.—I. G. Lawrence has contract for the erection of proposed \$35,000 high-school building.

Durham, N. C.—School Building.—Hook & Rogers, Charlotte, N. C., have completed plans for remodeling the main building of Trinity Park High School, Prof. J. A. Blivin, principal.

Durham, N. C.—Jail Building.—Durham county commissioners have let contract to B. F. Smith Fireproof Construction Co., Washington, D. C., for erection of proposed \$6000 addition to county jail.

Elizabeth City, N. C.—Office Building.—Pasquotank county commissioners have let contract to B. F. Smith Fireproof Construction Co., Washington, D. C., for building fireproof record rooms at a cost of \$5500.

Florala, Ala.—Hotel.—Lake Jackson Hotel Co. has been incorporated, with \$20,000 capital stock, by W. H. Britton and others.

Fort Worth, Texas.—Office Building.—The Fidelity Trust Co. is reported as to expend about \$60,000 in improvements to the Board of Trade Building recently purchased.

Gaffney, S. C.—Warehouse.—Cherokee Warehouse Co. has been organized, with W. S. Lipscomb, president, for the erection of warehouse 150x18 feet; capital stock \$5000.

Galveston, Texas.—Bathhouse.—Edward V. Haines, Fred W. Chase and John W. Mitchell have made application for permission to build a bath pavilion on the beach at a cost of about \$10,000; building to be 120 feet long, 12 feet high, constructed upon iron or steel piling.

Gary, W. Va.—Business Building.—L. G. Toney of North Fork, W. Va., and J. E. Townes of Graham, W. Va., have purchased site on which to erect business building.

Gatesville, N. C.—Jail Building.—B. F. Smith Fireproof Construction Co., Washington, D. C., has contract to remodel Gates county jail and place steel cells in same at a cost of \$5500.

Glenn Springs, S. C.—Warehouse.—Chartered: Glenn Springs Warehouse Co., with \$1000 capital stock, by A. O. Simpson, J. M. Williams, S. S. Hunter and R. H. Smith.

Haddock, Ga.—Courthouse and Jail.—Jones county has voted affirmatively the proposed bond issue for the erection of courthouse and jail.

Hendricks, W. Va.—Bank Building.—B. W. Jennings, president First National Bank, will receive bids until September 20 for the erection of building. Plans and specifications on file at the bank's temporary quarters. Usual rights reserved.

Hillsboro, Texas.—Hotel.—C. L. Carver has purchased site on which it is stated a hotel will be erected.

Hot Springs, Ark.—School Building.—Gawther & Mitchell have contract to erect school building, referred to last week; building to be of brick, 24x32 feet, equipped with two hot-air furnaces, electric lights and cost about \$15,000. Parsons Bros., Des Moines, Iowa, prepared the plans.

Huntsville, Ala.—Warehouse.—Farmers Warehouse Co., reported incorporated last week to erect warehouse, has had plans prepared by Edgar Love for a building 150x200 feet, of fireproof construction. Contract will be let at once for the erection.

Jackboro, Tenn.—Hotel.—The Springs Company is reported as to build a hotel at Eagle Bluff Springs.

Kansas City, Mo.—Clubhouse.—The local lodge of Elks has accepted plans by William H. Suyler, Commerce Building, for the erection of proposed addition to clubhouse; to be two stories, 67 feet square, of vitrified brick with buff terra-cotta trimmings, and cost \$40,000. The upper floor will be equipped as auditorium and ballroom, having a vaulted ceiling 30 feet high, stage 12x26 feet, etc. the air in auditorium to be changed every five minutes by forced ventilation; lower floor to have two bowling alleys, shower baths, swimming pool 21x25 feet and gymnasium 33x56 feet.

Key West, Fla.—School Buildings.—Monroe county has voted affirmatively the proposed \$60,000 bond issue for building and repairing county schools. Address Superintendent Harris.

Knoxville, Tenn.—Dwelling.—R. T. Ward rep & Son have contract to erect Mrs. J. E. Borchers' proposed \$6000 residence.

Knoxville, Tenn.—Office Building.—Thomas & Turner have contract to erect seven-story addition to the Empire Building after plans by Bauman Bros.

Knoxville, Tenn.—Dwelling.—W. T. Ward rep & Son have contract to remodel residence for J. H. Welcker after plans by L. C. Waters; cost \$7000.

Lampasas, Texas.—City Hall.—The city has purchased site on which to erect city hall and fire station, previously mentioned. Address The Mayor.

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Lexington, Ky.—Business Building.—H. L. Rowe has contract to erect three-story brick building, 108x21 feet, for the Harting heirs.

Little Rock, Ark.—Warehouse.—Commercial Warehouse Co. has been incorporated with \$100,000 capital stock by Charles F. Penzel, Moorhead Wright and J. E. Wooten to operate warehouse being erected. Mr. Penzel was reported last month as having let contract to W. D. Holtzman for the erection of warehouse, 75x152 feet, of fireproof construction, to cost \$18,000; Frank W. Gibb, architect.

Livingston, Tenn.—Jail Building.—Jarrett & Allred have contract to erect over seven county's proposed jail building; to be of brick and steel, fireproof construction, equipped with hot-water heating apparatus; cost \$8000. Wm. Jarrett prepared the plans.*

Louisville, Ky.—Dwellings.—J. W. Dunlap has purchased site on which to erect three residences.

Louisville, Ky.—Warehouse.—D. X. Murphy & Bro. have prepared plans for two seven-story warehouses for the Sunnybrook Distilling Co.; buildings to be of brick and steel construction, 112x141 feet, and cost \$40,000; capacity 42 barrels each.

Lutherville, Ga.—Bank Building.—The Lutherville Banking Co., organized by Jas. W. Taylor and associates, will erect bank building.

Macon, Ga.—Building.—Alexander Blair has been engaged to prepare plans and specifications for proposed \$50,000 building of Academy for the Blind.

Markham, Texas.—Warehouse.—The Markham Rice Milling Co. has let contract for the erection of proposed warehouse 100x212 feet.

Marshall, Mo.—Chapel.—Adam T. Swisher has contract for the erection of proposed \$80,000 chapel at the Missouri Valley College.

Memphis, Tenn.—Church.—C. J. Hollis has contract to erect addition to the Metropolitan Baptist Church; cost \$6000.

Morganton, N. C.—School Building.—L. W. Cooper, Charlotte, N. C., has contract for the erection of \$20,000 school building previously reported.

Norfolk, Va.—Hotel.—It is reported that Mrs. Elizabeth Jones and Mrs. Lydia G. Bellezza will erect a 100-room hotel, replacing present building.

Norfolk, Va.—Dwelling.—H. Crocker has purchased site on which to erect a three-story brick residence to cost \$8000.

North Augusta, S. C.—Pine Heights Sanitarium, previously reported incorporated with \$25,000 capital stock to erect sanitarium, has let contract to A. J. Little, Augusta, Ga., for the erection of \$10,000 building. Steam-heating plant, electric and acetylene-gas fixtures will be installed. Capital stock has been increased to \$35,000.

North Fort Worth (P. O. Fort Worth), Texas.—Business Building.—W. J. Borah has purchased site on which to erect business building.

Oklahoma City, O. T.—Warehouse.—The Parlin & Orendorff Company of Canton, Ill., and Kansas City, Mo., contemplates the erection of six-story building 125x200 feet.

Oklahoma City, O. T.—Church.—J. W. Lucas has been awarded contract for the erection of proposed \$75,000 edifice for the First Baptist Church.

Oklahoma City, O. T.—Warehouse.—It is reported that the Racine (Wis.) Saddlery Co. will erect three-story building 50x100 feet as soon as site can be secured.

Oliver Springs, Tenn.—Bank Building.—The Oliver Springs Banking Co. will erect \$4000 brick building.

Paragould, Ark.—School Building.—The Catholic congregation is arranging for the erection of a two-story brick veneer school building 48x64 feet. Address Father Fuerst.

Pauls Valley, I. T.—Building.—Tom Grant will erect a three-story brick building to cost \$9000.

Pensacola, Fla.—Lodge Building.—Bids will be received until September 18 at the office of C. H. Alston, 12 West Romana street, for the erection of a three-story brick building for Florida Lodge No. 2491 and Escambia Lodge No. 3738, G. U. O. of O. F. S. Plans and specifications may be seen at C. H. Alston's office. Usual rights reserved.

Pensacola, Fla.—Dwelling.—W. W. Alfred, Builders' Exchange, has completed plans for a one-story brick residence with tile roof to be erected by C. K. Weller at a cost of \$5000.

Pensacola, Fla.—Lodge Building.—W. W. Alfred, Builders' Exchange, has completed plans for a three-story brick lodge building, 50x90 feet, for the I. O. O. F.; to be faced on two streets with Philadelphia pressed brick, galvanized cornice; cost \$14,000.

Pickering, Mo.—Dwelling.—J. A. Akin, Hopkins, Mo., has prepared plans for a two-story residence for E. C. Wolfers; to be 43x48 feet, of frame, concrete flooring, shingle and tin roof, gas lights, parquet flooring, etc.; cost \$7000.

Quinnimont, W. Va.—Dwellings.—The Quinnimont Coal Co. will shortly begin the erection of 40 operatives' houses.

Quinnimont, W. Va.—Hotel.—R. H. Dickinson of Scarbro, W. Va., has contract to erect proposed \$9000 hotel.

Raleigh, N. C.—Masonic Temple.—Sealed bids addressed to the Grand Master, Grand Lodge of North Carolina, care of Charles K. Bryant, architect, 1014 East Main street, Richmond, Va., will be received by the Masonic Temple Construction Co. for the erection of Masonic Temple at Raleigh. Plans and specifications can be seen at the office of John C. Drewry, grand secretary, Raleigh, N. C., and at the office of Charles K. Bryant, architect, 1014 East Main street, Richmond, Va. Bids must be accompanied by a \$2000 bidding bond. Bids must be for a turnkey job and include everything. Usual rights reserved. The bids will be opened October 7.

Richmond, Va.—Church.—The Mankin Construction Co., 812 East Main street, has contract to erect edifice for the First Unitarian Church after plans by Arthur J. Russell, 8 Beacon street, Boston, Mass.; building to be one story, 29x38 feet, of brick, ordinary construction, equipped with electric and gas lights, and cost \$5900, exclusive of heating and furniture.

San Augustine, Texas.—School Building.—John Thompson has contract for the erection of proposed \$12,000 school building.

Savannah, Ga.—Dwellings.—H. H. & Wm. Lattimore have applied for permit to erect 51 residences at a total cost of \$30,000.

St. Augustine, Fla.—Dwelling.—F. N. Holmes has purchased site on which to erect a three-story residence.

St. Louis, Mo.—Church.—Pope Avenue Presbyterian Church is completing arrangements for the erection of proposed edifice; to be 60x150 feet and have a seating capacity of 400. Address The Pastor.

St. Louis, Mo.—Library.—Murch Bros. have been awarded contract at about \$40,000 for the erection of branch library building. Contract for heating, lighting and furnishings has not been let.

Stuart, Va.—Jail Building.—B. F. Smith Fireproof Construction Co., Washington, D. C., has contract for erection of Patrick county's proposed \$5500 jail building.

Terrell, Texas.—Church.—H. F. Whiting has contract to erect proposed \$8000 edifice for the Episcopal congregation.

Tifton, Ga.—School Building.—City will vote October 16 on the issuance of \$20,000 of bonds for the erection of school building. Address The Mayor.

Trenton, Tenn.—Warehouse.—G. W. Evette has begun the erection of proposed fireproof brick warehouse.

Washington, D. C.—Dwelling.—S. Beale Bloomer has let contract to M. H. Harriman for the erection of nine two-story dwellings to cost \$37,000; Hunter & Bell, architects.

Washington, D. C.—Dwelling.—A. C. Wyckhoff has contract to erect a two-story brick and stone dwelling for L. E. Smoot after plans by T. P. D. Fuller; cost \$10,000.

Washington, N. C.—Stable, etc.—B. L. Susman contemplates erecting three-story building 105x210 feet, to be equipped for stable, carriage repository and opera-house. Electric elevator, feed cutters and heating apparatus will be installed.

Wayne, W. Va.—Jail Building.—B. F. Smith Fireproof Construction Co., Washington, D. C., has contract to erect proposed \$15,000 courthouse for Wayne county.

Wheeling, W. Va.—Theater.—Jahn Amusement Co. has been incorporated, with \$10,000 capital stock, by A. Jahn, F. J. Healy, W. L. Tanney and others, to conduct theater. Building will be remodeled.*

Winchester, Ky.—Dwelling.—V. H. Powell has contract to erect two-story brick veneer residence for A. J. Earp. Electric-light fixtures will be installed; cost \$4300.*

Winton, N. C.—Courthouse Improvements. B. F. Smith Fireproof Construction Co., Washington, D. C., has contract to erect addition and make other improvements to Hertford county courthouse; cost \$5500.

Wytheville, Va.—Hotel.—John C. Blair and E. Lee Trinkle contemplate organizing company for the erection of a \$20,000 hotel.

Yadkinville, N. C.—Yadkin county commissioners have let contract to B. F. Smith Fireproof Construction Co., Washington, D. C., for erection of addition to Yadkin county courthouse; cost \$6000.

RAILROAD CONSTRUCTION.

Railways.

Aberdeen, N. C.—Reported that the Aberdeen & Ashboro Railway will secure an extension to Southern Pines; also that the Aberdeen & Rockfish Railroad will get a connection. H. A. Page is president of the former and John Blue of the latter, both with headquarters at Aberdeen.

Baltimore, Md.—The Baltimore & Ohio Railroad proposes to abolish grade crossings in Baltimore and to revise its line between Fairmont and Rivesville, W. Va. About \$250,000 will also be spent for third track. D. D. Carothers is chief engineer.

Baltimore, Md.—Reported that John W. Woodland, E. S. Johnson and W. D. Allen of the Farmers' Trust, Banking & Deposit Co., 211 North Liberty street, will build an electric railroad from Ocean City, Md., to Fenwick's Island and Rehoboth, Del., about 30 miles; also an electric railway from Ocean City to Berlin, Md., about six miles, and thence to Pocomoke City.

Birmingham, Ala.—The Birmingham Belt Railway is reported to have purchased 200 acres of land on Village creek near Birmingham to be used for terminals. A. D. Lightner is general manager.

Birmingham, Ala.—C. D. Smith & Co. of Birmingham have secured contract to build a four-mile extension of the Ensley Southern Railroad, and it is said that the nine-mile gap between Short Creek and Parish will soon be closed.

Bowden, Ga.—L. B. Parker of the Bremen & Southwestern Railway Co. is reported as saying that contract to complete the line has been let to the Missouri Construction Co., C. W. McCrea, vice-president and general manager, the work to be completed by December 10.

Brownwood, Texas.—Brooke Smith and others are reported to be working on the plan to build a railroad from Brownwood to Rising Star, Texas.

Bunkie, La.—C. J. Carpenter, superintendent of the Louisiana East & West Railroad, is reported as saying that the company is now ready to let contracts for building the line from Bunkie to Ville Platte, La., 20 miles.

Bristol, Tenn.—A. C. Walker and R. L. Greenleaf, engineers, are reported to be surveying for an extension of the South & Western Railway via Spartanburg, S. C. George L. Carter is president at Bristol.

Cartersville, Ga.—Reported that the Alabama Construction Co. has about completed its contract for eight miles out of Cartersville on the Louisville & Nashville Railroad's extension to Wetmore, Tenn.

Chambersburg, Pa.—The Cumberland Valley Railroad is reported to have bought land at Hagerstown, Md., to increase its trackage there. T. J. Brereton is chief engineer.

Chattanooga, Tenn.—J. Foster McFarland has, it is reported, very nearly finished survey from Chattanooga to Catoosa Springs, Ga., 20 miles, which is to be built by S. W. Divine and others. Mr. Divine is reported as saying that construction will begin within 30 days.

Chicago, Ill.—The Canyon City, Plainview & Southeastern Railroad is reported to have secured rights of way and made preliminary surveys from Canyon City, Texas, to Lubbock, Texas. The line will first be built only as far as Plainview, Texas. C. L. Tailmadge is president at the Railroad Exchange Building, Chicago. Major E. C. Gordon of Decatur, Ala., and Daniel C. Benton of Nashville, Tenn., are also said to be interested.

Cincinnati, Ohio.—Mr. G. B. Nicholson, chief engineer of the Cincinnati, New Orleans & Texas Pacific Railway, writes the Manufacturers' Record denying the press report that the Chattanooga Belt Railway would build additional yards.

Clinton, Ga.—J. T. Williams of this (Jones) county is reported to be promoting a plan to build an electric railway to Macon. The line may run as far north as Gainesville, 100 miles from Macon.

Cordele, Ga.—Reported that a charter is being prepared by Col. W. H. Dorris for a railroad which will connect Charleston, S. C., and Pensacola, Fla., via Cordele.

Darien, Ga.—Reported that the Darien & Western Railroad contemplates an extension from Darien to Brunswick, about 14 miles. H. D. Emerson is vice-president and general manager.

Demopolis, Ala.—Reported that Col. N. G. Winn of Demopolis, one of the promoters of the Mobile & West Alabama Railroad, has received assurances from Mallory, May & Burt that the financing of the proposition is now in prospect of being completed.

Durham, N. C.—Mr. R. I. Cheatham, gen-

eral manager of the Durham & Southern Railroad, which is to be 19 miles long from Apex to Durham, is reported as saying that 10 miles have been graded by the contractors, W. R. Bonsai & Co. of Hamlet, N. C. G. E. Lemmon is chief engineer at Durham; B. N. Duke is president.

Florence, La. (P. O. Audubon, La.)—McKinney & Oliver write the Manufacturers' Record that they have 80 miles of work to let, good team and scraper work, instead of eight miles as previously reported.

Fort Worth, Texas.—Reported that Morgan Jones and D. T. Bomar have closed the contract with the people of Stamford to build an extension of the Wichita Valley Railway from Seymour, about 60 miles. W. E. Kaufman is secretary, Fort Worth, Texas.

Gainesville, Ga.—Reported that the Gainesville & Athens Construction Co., which has just been chartered, will sublet contracts to grade the proposed railroad extension from Jefferson to Athens, Ga., and the gauge from Gainesville to Jefferson will be made standard. E. L. Douglas, general manager of the Gainesville Midland Railway, may give further information.

Galveston, Texas.—It is reported that a movement is under way to build a branch of the Cane Belt Railroad from Glenflora to Yoakum, about 50 miles. B. A. Paulus of Hallettsville is said to be interested. The Cane Belt is a Santa Fe property, and C. F. W. Felt is chief engineer at Galveston.

Goldsboro, N. C.—Mr. R. P. Foster, general manager of the Atlantic & North Carolina Company, writes the Manufacturers' Record denying the report that the company will build an extension from Beaufort, N. C., to Cape Lookout.

Greenville, S. C.—Mr. H. H. Prince is reported as saying that the contract to build the Greenville & Knoxville, or Saluda Valley Railroad, from Greenville to Marietta, S. C., 27 miles, has been let to a large construction company in Philadelphia. The line is intended to be finally extended to Knoxville, Tenn. Capt. G. D. Howell represents the contractor.

Hagerstown, Md.—The Hagerstown & Waynesboro Electric Railway Co. has been incorporated to build a line from Hagerstown to Waynesboro, Pa., 12 miles. The incorporators are Daniel C. Gilbert, Walter D. Wilson, Dr. Edward A. Wareham, John W. Feldman and Mayor Abraham C. Strite.

Jacksonville, Fla.—Reported that W. T. Cotter has the contract to build the Jacksonville, Suburban & Seashore Railway proposed by the Riddle-Lawrence Company. He is quoted as saying that he expects to begin work early in October. The line will be 42 miles long from Jacksonville to St. Augustine. C. R. Bill is chief engineer.

Jonesboro, Ark.—The Jonesboro, Lake City & Eastern Railroad has increased its capital from \$25,000 to \$55,000 to extend its line from Dell, Ark., to Osceola, Ark., 20 miles. A. J. Kerfoot is general manager.

Jonesboro, Ark.—W. W. Cate is reported to be promoting the construction of the Jonesboro-Nettleton Interurban Railway Co. to build an electric line from Jonesboro to Nettleton, four miles. M. F. Lamb and Rudy Copeland are also said to be interested.

Kansas City, Mo.—The Kansas City Southern Railroad is reported to be surveying a line between Siloam Springs, Ark., and Shawnee, O. T., about 150 miles. A. F. Rust is resident engineer at Kansas City.

Kansas City, Mo.—Mr. Milnor P. Paret, chief engineer of the Kansas City, Mexico & Orient Railway, writes the Manufacturers' Record confirming the report that a reconnaissance has been made from San Angelo, Texas, southward, with a view toward securing a through line to the City of Mexico. It is undecided whether the line will be via Del Rio or Spofford Junction. Surveys now being made.

Kansas City, Mo.—The Central Railway Co. of Kansas City has been chartered with \$1,500,000 capital to build a line 50 miles long from Miami in Saline county, Missouri, to Sedalla in Pettis county, Missouri. E. C. Wright of Kansas City is said to be the principal stockholder, the others being W. E. McCulley of Macon, Mo.; W. S. Roberts of Chicago, T. J. O'Donnell of Kansas City, W. H. Smith of New York; E. D. Martin of Marshall, A. W. LaRose of Albany, N. Y.; S. P. Martin of Kansas City, F. M. Catlin of New York, T. F. Marshall of Blackwater and B. M. Reid of Kansas City.

Knoxville, Tenn.—W. J. Oliver is quoted as confirming the report that he has been given the contract to build the Southern Railway's extension from Stevenson, Ala., to Chattanooga, Tenn., 42 miles.

Knoxville, Tenn.—McCreary & Co. will, it is reported, grade the first 10 miles and Donaghy & Co. the second 10 miles under

W. J. Oliver & Co. for the Southern Railway's double track east of Knoxville.

Knoxville, Tenn.—Reported that W. J. Oliver & Co. of Knoxville has been given the contract to double-track the Southern Railway from Knoxville to Morristown, Tenn.

Knoxville, Tenn.—W. J. Oliver & Co. of Knoxville have been awarded the contract to build the Johnson City Southern line of the Southern Railway from Johnson City, Tenn., to Marion, N. C., 80 miles. Elkins & Co., subcontractors, have been ordered to begin work about one and one-half miles from Embreeville, Tenn. Henry Fondl, general agent of the Southern at Knoxville, is quoted as confirming this report.

Lehigh, I. T.—The Oklahoma Central Railway Co. is the new name of the Canadian Valley & Western Railway Co., and the Canadian Valley Construction Co. of Chicago, Ill., has been given a contract to build a line from Lehigh to Chickasha, I. T. R. L. McWille, chief engineer, has established headquarters at Lehigh, and construction is to begin immediately.

Lexington, Ky.—President Younger Alexander of the Bluegrass Traction Co. is reported to be working on a plan for an electric railway 25 miles long from Paris, Ky., via North Middletown and Sharpburg to Mt. Sterling, Ky. It will connect with the Lexington & Paris line at Paris.

Lexington, O. T.—The contract reported let to the Lovejoy Construction Co. of Fort Worth, Texas, to build 10 miles of line for the Oklahoma City, Lexington & Sulphur Springs Electric Railway is said to have been given by the Colonial Construction Co., of which E. P. Spears is president and general manager. Joy Sherman is president of the railway, and George M. Teague, secretary. The Missouri-Lincoln Trust Co. of St. Louis is reported to be interested. J. W. Maney of El Reno, O. T., is also said to have a contract.

Lufkin, Texas.—J. A. McCarthy, consulting engineer, is quoted as saying that the Gulf & Northwestern Railroad will build a line from Waco to Thurber, Texas, 110 miles, with branches from Meridian to Granbury, 60 miles, and from Meridian to Hamilton, 40 miles. It is expected to begin construction early this fall from Stephenville to Thurber, 28 miles, which part has been surveyed.

Magnolia, Ark.—R. L. Emerson, A. A. Reid and N. J. Gantt have been appointed a committee to consider the advisability of building a railroad from Magnolia westward to a point near Stamps, Ark.

Midville, Ga.—President Allen W. Jones of the Augusta & Florida Railroad is reported as saying that the company will build its own line from Keysville to Augusta, 26 miles, having completed the line from Midville to Keysville.

Mobile, Ala.—The Mobile, Jackson & Kansas City Railroad is now complete from Mobile to Middleton, Tenn., 367 miles, the last spike having been driven near Burnside, Miss., by President Bird M. Robinson.

Morgantown, W. Va.—The Morgantown & Dunkard Valley Railroad Co. of Morgantown has been chartered to build a line from Morgantown to Wadestown, about 25 miles. Business men of Monongalia county are said to be the promoters.

Nashville, Tenn.—Reported that the Tennessee Central Railway will in a few days begin construction of the Obey City extension, three or four miles long. W. J. Oliver is contractor.

Newbern, N. C.—The Pamlico, Oriental & Western Railway Co. has accepted the proposition of Col. W. B. Rodman, representing the Virginia & Carolina Coast Railroad Co., to take over the contract for building the Pamlico, Oriental & Western line from Newbern to Oriental and Goose Creek Island, 52 miles. Construction has been going on under Mr. James A. Bryan, and about 20 miles are finished.

Oklahoma City, O. T.—G. B. Stone is reported to have completed arrangements for financing the proposed Oklahoma City & Texas Railway, of which he is president.

Perry, Fla.—W. H. Jones, contractor for the Dowling Bros. railroad, is reported as saying that the line will be in operation to Perry within 90 days. J. H. Herlong is engineer.

Pine Bluff, Ark.—Reported that construction will begin immediately on the Arkansas, Louisiana & Gulf Railroad, which is to run from Pine Bluff, 125 miles, to a point in Louisiana. Phillip B. Stewart, president of the Colorado Title & Trust Co.; William A. Otis, James M. Parker and Eugene A. Sunderlin, together with Eastern capitalists, are interested.

Pittsburg, Pa.—Concerning the report that the Pennsylvania Company would extend the

freight yards at Wheeling, W. Va., an officer writes the Manufacturers' Record that the only work is a small extension of yard tracks, and that no extensive plans for improvements there are under way.

Port Arthur, Texas.—Mr. James P. Ward, vice-president and general manager of the Port Arthur & Houston Short Line, writes the Manufacturers' Record that it is not yet decided which route will be followed after crossing old river at Wallisville, Texas. At present 56 miles are ready for construction, and contracts will be let within two weeks. C. S. Clever is general contractor at 67 Houston Theater Building, Houston, Texas; H. F. Faulkenburg is chief engineer.

Purcell, I. T.—Contractors are reported to be assembling forces to begin construction of the proposed Oklahoma Central Railway from Lehigh to Purcell and thence to Chickasha. Dorset Carter is president, and T. C. Wood, secretary.

Staunton, Va.—Reported that the Valley of Virginia Traction Co. is securing rights of way for its line from Staunton to Middlebrook, 17 miles. H. B. Sprout is president, and J. Lewis, chief engineer at Staunton. Contracts may be let about November 1. H. G. McGary is secretary at Middlebrook, Va.

St. Louis, Mo.—Reported that the Frisco system will build a new line from Paris, Texas, to Mexia, Texas, 175 miles. J. F. Hinckley is chief engineer.

Suffolk, Va.—Reported that the Virginia & Carolina Coast Railway Co., which has purchased the Suffolk & Carolina Railway, will extend that line from South Mills to Norfolk, Va., 25 miles, and also from Edenton, N. C., to Beaufort, N. C., about 100 miles. E. E. Dewey is general manager.

Washington, D. C.—Reported that the Southern Railway Co. will build a five-mile extension of the Flat Top mines branch in the eastern part of Jefferson county, Alabama. W. H. Wells is engineer of construction.

Washington, Ga.—J. H. Fitzpatrick will, it is reported, build a railroad from Washington to Elberton, Ga., via Anthony Shoals, about 30 miles. Eastern capitalists are said to be interested.

Wickliffe, Ky.—Reported that construction of the Cairo & Tennessee River Railway will be done by the Atlanta & Cairo Construction Co. of New Jersey. Charles H. Delano of Wickliffe, Ky., will have charge of the work.

Street Railways.

Baltimore, Md.—The United Railways & Electric Co. will begin work shortly on the Federal-street line. It has already begun construction of an extension on South Fremont avenue.

Bristol, Tenn.—The Bristol Belt Line Railway has applied for a franchise to build a street-car line on the Virginia side of this city.

Cumberland, Md.—The South Cumberland Electric Railway Co. has been incorporated to build a line from a point in Cumberland near Baltimore street to a point in South Cumberland near the Western Maryland Railroad station. The city council has been asked for a franchise. The directors are William E. Walsh, Peter J. Seaver, Harry E. Weber, Robert H. Gordon, David A. Robb and Ferdinand Williams. The above, with the exception of Mr. Walsh, are the incorporators.

Georgetown, S. C.—The Winyah Traction & Power Co. has been granted a commission to build a street railway six miles long. The incorporators are J. B. Steele, W. W. Taylor, E. W. Kaminski, W. H. Andrews and L. Mouzon.

Waycross, Ga.—George S. Sharpe has applied for a street-railway franchise, this being in addition to the recent application of the City & Suburban Street Railway Co.

Manila Rope—Hunt's Make.

The C. W. Hunt Company, 45 Broadway, New York city, has issued Pamphlet No. 59 in reference to manila rope, Hunt's plumbago laid, for transmission of power, pile-driving, hoisting and numerous other purposes. This leaflet is a regular "multum in parvo" as to transmission rope and its uses, tables of the proper diameter of sheaves and horse-power at various speeds of the rope and other information of value to power users. More detailed facts are presented in the company's 68-page book. The latter contains full-size drawings of correctly-proportioned pulley grooves, illustrations of various rope drives and many tables, together with much valuable information not obtainable elsewhere, useful to engineers and others interested in the subjects of rope-driving and hoisting with rope. Engineers interested in these subjects can obtain a copy by addressing the C. W. Hunt Company.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—See "Water-works Equipment."

Angle Bars.—See "Building Material."

Asbestos Packing.—Union Gin Co., Hollis, O. T., wants prices on asbestos packing for engine and pumps.

Baskets.—Clarksville Steam Bakery Co., Clarksville, Ark., wants prices on baskets. Bending Machinery.—John H. Hoyt, Delaware, N. J., wants to buy a good machine for finishing bent hames; to bend back and front at the same time.

Boiler.—See "Water-works Equipment."

Boiler.—See "Traction Engine."

Boiler.—R. A. Long, Beaufort, S. C., wants two 130 to 135-horse-power boilers built to Hartford specifications and capable of carrying 125 pounds steam pressure.

Boiler.—Medford Creamery & Ice Co., Medford, O. T., will be in the market for a boiler.

Boiler.—See "Engine and Boiler."

Boilers.—See "Engines and Boilers."

Boilers.—Bids will be received until September 26 at the bureau of supplies and accounts, Navy Department, Washington, D. C., for the delivery and installation of three water-tube boilers and machinery for the power-house at the Naval Hospital, Washington, D. C. Copies of plans and specifications can be obtained upon application to the bureau of medicine and surgery, Navy Department, Washington, D. C. Application for proposals should refer to Schedule 131. Blank proposals will be furnished on application to the bureau; H. T. B. Harris, paymaster-general, U. S. N.

Boiler Specialties.—See "Fuel-oil Burners."

Bottles and Cases.—Carper Lithia Springs Co., Radford, Va., wants prices on half-gallon lithia water bottles and shipping cases.

Building Equipment and Supplies.—Theodore E. Macken, Hoffman Building, 11 East Lexington street, Baltimore, Md., who is about to erect a number of cottages at Howard Park, a suburb of Baltimore, wants sub-bids on following material: Mill work, plumbing, heating, hardware, electric wiring and fixtures, glass, metal work, plastering, painting and lumber.

Building Material.—Charles P. Snuggs, Raleigh, N. C., wants prices on steel angle bars.

Building Materials.—J. P. Hartzog & Son, Spartanburg, S. C., want prices on pine framing, sand or limestone, composition built on roofing, etc.

Building Materials.—I. G. Lawrence, Durham, N. C., wants prices on cast-iron columns, beams, plate glass, lumber, lime, cement, Cortright metal shingles, etc.

Chairs.—See "Theater Equipment."

Concrete-block Machinery.—E. H. Moses, Sumter, S. C., wants addresses of manufacturers of machinery for making sand and cement hollow blocks; hydraulic pressure system.

Concrete-block-factory Equipment.—The Perfection Concrete Stone Co., Fort Worth, Texas, wants prices on dryer cars, cars to move blocks and appliances to handle them; also power tampers and conveniences in the concrete business.

Concrete-block Machinery.—Columbus Concrete Supply Co., Columbus, Ga., wants catalogues of concrete-block machinery.

Cotton-mill Machinery.—Rhode Island Company, Spray, N. C., wants two second-hand twisters and a spooler at once.

Dump Boat.—Bids will be received until October 6 at the United States engineer office, Wheeling, W. Va., for furnishing and delivering one dump boat for the Kanawha river, West Virginia. Information furnished on application to office or to United States engineer office, Charleston, W. Va.; Geo. A. Zinn, major, engineers.

Electric Equipment.—The Courier, W. C. Hammer, editor, Ashboro, N. C., wants prices on electric motors.

Electrical Equipment.—Elba Manufacturing Co., Charlotte, N. C., is in the market for a 5-horse-power 115-volt direct-current motor for quick delivery; either new or second-hand.

Electric-light Plant.—Black Rock Gin Co., Black Rock, Ark., wants prices on machinery and equipment for electric-light plant.

Electric-light Plant.—Medford Creamery & Ice Co., Medford, O. T., will be in the market for electric-light system for creamery and ice plant; building 40x60 feet.

Electric-lighting Plant.—Jackson Woolen Mills, Jackson, Tenn., will be in the market for electric-lighting plant.

Electric-light Plant.—E. C. Ivey, care Ivey Mill Co., Hickory, N. C., wants catalogues and estimates for a town-lighting plant, 40 or 60 kilowatt, 2200-volt belted alternator, single phase, 60 cycles, constant current, series arc lamps with transformers, single high-speed engine; gasoline engine considered.

Elevators.—Charles P. Snuggs, Raleigh, N. C., wants prices on hand power elevators.

Elevators.—Memphis Sash & Door Co., Memphis, Tenn., wants to correspond with manufacturers of electric and hydraulic elevators.

Elevators.—Jackson Woolen Mills, Jackson, Tenn., will be in the market for elevators.

Engine.—Minnigerode & Duckworth, Lynchburg, Va., are in the market as dealers for a 14 to 16-horse-power portable engine on wheels; second-hand in good condition, for delivery at Farmville, Va.

Engine.—E. C. Ivey, care Ivey Mill Co., Hickory, N. C., is considering the purchase of gasoline engine to operate electric light plant. (See "Electric-light Plant.")

Engines.—J. R. Gage, Bartow, Fla., wants to correspond with manufacturers of gasoline engines.

Engine and Boiler.—Clarksville Steam Bakery Co., Clarksville, Ark., wants prices on engine and boiler and connections.

Engines and Boilers.—The University Press of Sewanee, Sewanee, Tenn., wants prices on steam engines and boilers.

Engine and Boiler.—See "Traction Engine." Flour-mill Machinery.—Majestic Milling Co., Aurora, Mo., is in the market for complete equipment for flour mill; daily capacity 500 barrels.

Fuel-oil Burners.—Box 652, Richmond, Va., wants prices on fuel-oil burners suitable for boilers for operation either by compressed air or steam.

Gas plant Equipment.—The Consumers' Light & Heating Co., Fort Worth, Texas, wants prices on gas generator, holders, pipe, etc.

Hand-factory Equipment.—Silver & Gadsden, Savannah, Ga., are in the market for complete equipment for plant to manufacture broom handles, axe handles, etc.

Hoisting Equipment.—I. G. Lawrence, Durham, N. C., is in the market for a 10-horse-power double-cylinder double-drum hoisting engine; second-hand if in good condition.

Hoisting Equipment.—J. H. Macleary, Suffolk, Va., is in the market for one 7x10-inch or 8x10-inch double-cylinder double-drum Lidgetwood hoisting engine; second-hand in good condition preferred. Quote price f. o. b. Suffolk.

Ice Machinery.—J. P. Van Derveer, P. O. Box 275, Clanton, Ala., wants addresses of manufacturers of ice machinery.

Ice Plant.—W. M. Williams, Welaka, Fla., will probably buy a six-ton can ice plant; 20 horse-power.

Ice Skate Manufacturers.—Hall, Hurt & Co., French & Roberts Building, Knoxville, Tenn., want to represent in East Tennessee and North Carolina some reliable manufacturer of ice skates.

Insulating Material.—The Consumers' Light & Heating Co., Fort Worth, Texas, wants prices on insulating material.

Latrine.—Bids will be received until September 30 at the bureau of yards and docks, Navy Department, Washington, D. C., for a brick latrine at the navy-yard, Charleston, S. C. Plans and specifications can be seen at the bureau or will be furnished by the commandant of the navy-yard named: Mordecai T. Endicott, chief of bureau.

Laundry Equipment.—H. D. Rantin, Clinton, S. C., wants to purchase a complete outfit for steam laundry; must be in good condition. (Correspondence with Carolina or Virginia parties preferred.)

Lighting Contract.—Board of Public Works, City Hall, Knoxville, Tenn., will receive bids until September 25 for lighting the streets

by electricity or gas per lamp each for not less than 300 lamps for the term of 3, 5, 7 and 10 years. Usual rights reserved; Wm. Epps, chairman.

Machine Tools.—Charles W. Ford, 120 Grand avenue, Oklahoma City, O. T., is in the market for one 36-inch engine lathe, one small planer and one shaper; second-hand in good condition and at reasonable price.

Machine Tools.—Minnigerode & Duckworth, Lynchburg, Va., are in the market as dealers for a boring machine, double spindle, for delivery at Farmville, Va.; second-hand in good condition.

Mantels.—A. J. Earp, Winchester, Ky., wants prices on mantels.

Mill Supplies.—W. A. Carver, Rougemont, N. C., wants to buy shafting and pulleys.

Paving.—Board of Public Works, Louisville, Ky., will receive bids until September 23 for paving and repaving 52 different sections of the city streets, for which \$10,000 is available.

Picture frame Machinery.—Winston Novelty Co., Winston-Salem, N. C., wants to correspond with manufacturers of machinery for molding picture frames; also machinery for shaping and designing composition (putty, cement, etc.) that is used in manufacturing cheap frames.

Piping.—See "Water-works Equipment."

Piping.—See "Gas plant Equipment."

Piping.—The Consumers' Light & Heating Co., Fort Worth, Texas, wants prices on steam pipe.

Plumbing.—I. G. Lawrence, Durham, N. C., wants estimates on plumbing complete.

Power Equipment.—See "Saw-mill Equipment."

Pump.—See "Water-works Equipment."

Railroad Construction.—"R. R." care Manufacturers' Record, Baltimore, Md., will let contract for building about 75 miles of railroad; also relaying T rail, 56-pound and heavier; also for other supplies necessary.

Railway Equipment.—"T Rail," care the Manufacturers' Record, Baltimore, Md., wants first-class relaying "T" rail, 56-pound and heavier.

Railway Equipment.—See "Concrete-block-factory Equipment."

Railway Equipment.—Box 281, Passaic, N. J., wants enough T rail to lay 600 feet of track, about 30 pounds per yard, relayers.

Railway Equipment.—Sanders & Lemacks, Ritter, S. C., are in the market for 3½ to 4 miles relay 20 to 25-pound iron rail.

Road Improvements.—Sealed bids endorsed "Proposals for Macadam Roads" will be received by D. B. Redwine, chairman, and T. G. Back, town clerk, Jackson, Ky., until September 25 for building macadam roads with stone curbs on certain streets. All proposals must be made on blank forms obtained from the town clerk and accompanied by a certified check for \$500, payable to T. G. Back, town clerk. Plans and specifications may be seen at the town clerk's office. Usual rights reserved.

Rubber-stamp Machinery.—Lovett Printing Co., Charleston, W. Va., wants to correspond with firms relative to handling rubber-stamp machinery, automatic stamps, novelties, rubber pads, etc.

Saddlery Equipment.—W. M. Bell, Elkin, N. C., wants addresses of manufacturers of machinery for making harness pads, saddle and collar pads.

Safe.—Farmers' Warehouse Co., Huntsville, Ala., wants prices on safe.

Saw-mill Equipment.—Green River Lumber Co., Station E, Memphis, Tenn., wants prices on drop-saw iron-frame trimmer, one set nine-inch number live rolls; also power equipment for live rolls.

Saw-mill Machinery.—The McDonald Lumber Co., Mobile, Ala., wants prices on machinery and equipment for saw-mill.

Scales.—Rhode Island Company, Spray, N. C., wants one pair of wagon platform scales, second-hand.

Scenery.—See "Theater Equipment."

Shafting.—Clarksville Steam Bakery Co., Clarksville, Ark., wants prices on shafting, etc.

Sheet-metal Machinery and Supplies.—John Gowdy Manufacturing Co., E. T. Shortt, secretary, Little Rock, Ark., wants prices on dies, presses and sheet metal.

Spoke Machinery.—Silvera & Gadsden, Savannah, Ga., are in the market for machinery and equipment for the manufacture of spokes.

Stem Shovel.—J. F. Donahoe, Bond Building, 14th and New York avenue, Washington, D. C., is in the market for a second-hand stem shovel, in first-class condition, latest

improved, for brickyard purposes; between 18 and 30 tons, ¾ to 1¼-yard dipper.

Steel Jail Work.—Jarrett & Allred, Livingston, Tenn., want prices on 1 beams, tool-proof cages, corrugated steel and iron doors for jail building.

Theater Equipment.—Jahn Amusement Co., Wheeling, W. Va., wants scenery and opera-chairs.

Traction Engine.—Frank Wright, Cave Springs, Ga., wants to buy a traction engine and boiler.

Water-wheels.—O. F. Luttrell, Brewton, Ala., wants addresses of manufacturers of the old-fashioned wood water-wheels, breast and overshot, large size.

Water-works Equipment.—The Mayor, Floresville, Texas, will receive bids until September 28 for the purchase of one 40 horse-power return-tubular boiler, one feed-water heater, one fire underwriters' pump, one air compressor, cast-iron pipe and specials and 10 fire hydrants. Specifications covering different items can be had of H. C. Thompson, city secretary, Floresville, or M. Griffin O'Neil, engineer, Dallas, Texas. Usual rights reserved.

Woodworking Machinery.—See "Saw-mill Equipment."

Woodworking Machinery.—P. O. Box 132, Waynesboro, Miss., is in the market for a planer that will dress 15 or 20 feet of lumber a day and up to six inches in size.

Woodworking Machinery.—Frank Wright, Cave Springs, Ga., wants to buy a panel-raiser; new or second-hand in good condition.

Woodworking Machinery.—W. A. Carver, Rougemont, N. C., wants to purchase a planer and matcher to plane lumber six inches thick and 14 inches wide; also good saw machine.

Woodworking Machinery.—Minnigerode & Duckworth, Lynchburg, Va., are in the market for a heavy four-sided planer and matcher for delivery at Farmville, Va.; second-hand in good condition.

Woodworking Machinery.—Chas. W. Ford, 120 Grand avenue, Oklahoma City, O. T., is in the market for one small band saw; second-hand in good condition at reasonable price.

Woodworking Machinery.—See "Bending Machinery."

Woodworking Machinery.—See "Picture-frame Machinery."

Woodworking Machinery.—See "Saw-mill Machinery."

Woodworking Machinery.—See "Handle-factory Equipment."

Woodworking Machinery.—See "Spoke Machinery."

Woodworking Machinery.—Chattanooga Chair Co., Chattanooga, Tenn., wants a three-bit mortiser for chair posts.

MEXICO.

Irrigation Plant.—Marcelino Garza & Sons of Ramos Arispe, Centro District, Coahuila, have petitioned for permission to utilize the waters of the Potosi river in the irrigation of their hacienda.

Lumber Mills.—His Excellency report that A. E. Stilwell, president of the Kansas City, Mexico & Orient Railway, Kansas City, Mo., and his associates have just completed the purchase of 415,000 acres of timber land in the Sierra Madras mountains, Mexico. Their intention is to thoroughly develop the property, erecting lumber mills and building lumber railways for shipping the output.

Shoe Factory.—It is rumored that the W. L. Douglas Shoe Co. of Brockton, Mass., contemplates building a shoe factory in the City of Mexico.

Water-power-Electrical Plant.—Andres LeFebvre, said to be of the City of Mexico, has applied for franchise to use the waters of the Amacuzac river at Xicotlacotla, between the States of Morelos and Guerrero, for power purposes. A dam is to be constructed and the power will be transmitted by electricity.

Water-power-Electrical Plant.—Vicente Martinez, said to be of the City of Mexico, has applied for franchise to use the waters of the Escondido river in Coahuila for power purposes, the rights to include the construction of dam and erection of electric plant to transmit the power.

Water-power-Electrical Plant.—George G. Bergman of the City of Mexico has applied for concession to develop water-power and build electric plant on the River Blanco, Cordoba, Canton, Vera Cruz.

INDUSTRIAL NEWS OF INTEREST

West Virginia Coal Lands for Sale.

The greatest railroad and financial forces of America, including the Pennsylvania and Vanderbilt interests, the Goulds and the Standard Oil people, the Cincinnati, Hamilton & Dayton and its affiliated lines, the Ryan-Blairstown people, the Chesapeake & Ohio, the Baltimore & Ohio and others, are all being centered in West Virginia. It is doubtful if there has ever been in any section of this country such a concentration of railroad and financial forces for the development of a section as is now seen in the West Virginia-Kentucky-Southwest Virginia territory. This activity assures a rapidity of development which promises to more than surpass that in the coal regions of Pennsylvania and to bring about an enhancement in values of coal and timber lands and a growth in town-building which will be one of the wonders of the day. Looking forward for some years to this condition of affairs, Mr. N. B. Dotson, now of No. 66 Broadway, New York, but until recently living in the center of West Virginia and Virginia coal activity, has gathered together an aggregate of between 400,000 and 500,000 acres of Pocahontas-New River coal properties, which he is advertising in this week's issue of the Manufacturers' Record. These properties are susceptible of being divided up into any size tracts that buyers may desire. They offer an exceptional opportunity for investors who wish to purchase where security and enhancement in value are absolutely assured, as well as for coal operators who want to develop. The opening up of these properties by the building of the Deepwater Railroad and of new lines of the Chesapeake & Ohio, the Norfolk & Western and others has vastly increased their value since their control was secured by Mr. Dotson. His aggregate holdings form probably the largest body of Pocahontas-New River coal lands available for purchase at any price.

Tennessee Coal Lands.

Valuable coal lands, accessible to railroads, located in the best portion of East Tennessee, and showing excellent veins of marketable fuel, are offered for sale, and information regarding the properties can be obtained by addressing Lock Box 196, Harriman, Tenn.

Laundry Equipment Offered.

A complete steam-laundry equipment in good condition is offered for sale at a bargain price by its owner. For information address P. O. Box 58, Eutaw, Ala.

Mr. Charles J. Thompson.

We are advised that Charles J. Thompson, who formerly represented the Hendrick Manufacturing Co. of Carbondale, Pa., as manager of its New York office at 149 Broadway, is no longer connected with the company.

Tobacco Factory for Sale.

The settlement of an estate has placed on the market the tobacco factory of R. T. Martin Company at Hopkinsville, Ky. The property is in the center of the tobacco district, and the brands manufactured are established. For information address John T. Edmunds at Hopkinsville.

Coal and Timber Properties.

Coal and timber properties said to be well worth the investigation of buyers for investment or development are offered for sale by Wm. H. Foster, 141 Broadway, New York. One proposition is an 800-acre tract of coal land in Indian Territory, and the other is a 105,000-acre tract of coal and timber land in Tennessee.

Important Fireproofing Contracts.

Several important fireproofing contracts have been obtained by the Southern Construction Co. They include the concrete work on the Freedman Hospital and Kene-saw apartments of Washington, D. C., and the hollow-tile partitions in the United States custom-house in New York. This latter contract is an important one, amounting to about \$55,000, and was secured in competition. The Southern Construction Co. is daily receiving requests to submit estimates on work in the principal cities of the country. Its offices are in the Continental Building, Baltimore and Calvert streets, Baltimore, Md., and are in charge of Warfield

Ward, who is thoroughly experienced in this line of work.

American-Ball Engines.

In referring to the American-Ball engines last week it was inadvertently stated that the American Engine Co. has its manufacturing plant at Auburn, Ala. The fact is that the company's extensive works for building engines is located at Bound Brook, N. J., which is well known to people familiar with the engine world, and Auburn, Ala., is a Southern office, where A. St. C. Dunstan is in charge as Southern agent. The American-Ball duplex compound engine and direct-connected generator is a marvel of simplicity and warrants the full investigation of anyone contemplating a purchase in this department of mechanical equipment. It requires no more floor space than the simple engine, and its builder claims it saves 25 per cent. of the fuel without a condenser.

Big Demand for Diesel Engines.

There is a big demand at present for the Diesel engine, and its manufacturer reports that contracts now being steadily received are pushing the works to its greatest capacity. As the superior features of the Diesel machines become known, power users select them for installation. The Diesel engine is built by the American & British Manufacturing Co. of Providence, R. I., one of the subsidiary companies of the International Power Co. It has just received contracts to build one triple Diesel, 120 horse-power, for the Hellwell Company, Pittsfield, Mass.; one triple Diesel, 75 horse-power, for the Twin Village Water-Works, Damariscotta, Maine; one triple Diesel, 225 horse-power, for the Pittsfield Electric Light Co., Pittsfield, Mass.; two triple Diesels, 225 horse-power each, for the city of Bellefontaine, Ohio, and one triple Diesel, 120 horse-power, for the Boyesen Electric Light Co., Brownwood, Texas.

A Chimney to the Clouds.

It is stated that New York is soon to have an odd amusement enterprise in the shape of a tower taller than any structure in the world and equipped with a large variety of combined entertainments and utilities. The tower will be 1250 feet high, and it is reported that New York capitalists have ensured its construction by furnishing the necessary capital. It will be called "The Weber Tower," after its designer, Carl Weber, one of the best known experts in the matter of tall steel-concrete construction. In design the tower will be novel. Its main part is to be cylindrical, in the form of a shaft of 35 feet inside diameter, the lower 300 feet reinforced by a system of ribs, while the largest outside diameter will be 140 feet. Eight elevators will be used to transport passengers in this structure. There are various other interesting facts as to the plan for providing offices and amusements. The designer, Carl Weber, is the president of the Weber Steel Concrete Chimney Co. of Chicago, which has built some of the tallest chimneys and other important structures in this country.

To Architects and Others.

The Cutler Manufacturing Co. of Rochester, N. Y., has received notice of additional restrictions imposed by the Postoffice Department upon the transaction of its business, and as it makes limitations which will necessarily require consideration in planning, it brings them to the attention of architects and others interested at the earliest possible day. In addition to prescribing special construction, placing the apparatus more than 50 feet from the entrance door is prohibited, the use of pedestals under mail boxes is forbidden, and the cubic contents of the mail box must be determined by the postmaster. These regulations, in accordance with the requirements of the Department, will be printed on the back of and made a part of all contracts entered into by the Cutler Manufacturing Co. hereafter. Architects will see that the requirements are now so much more exacting that it will be desirable to reserve a location within 50 feet of the entrance, where a vertical fall can be had and the mail box located in the ground-floor corridor, on a solid wall or other rigid support, and the mail chute entirely in public corridors. Where plans are sent the company it will prepare drawings for the approval of the local postmaster, as now required, and assist in any way desired in the preliminary arrangements for installation. Plans may be sent by express at the Cutler Manufacturing Co.'s expense, and will be returned charges prepaid. Write for detailed circular.

Western Bank Note & Engraving Co.

On August 24 the Manufacturers' Record mentioned that the Western Bank Note & Engraving Co. of Chicago had recognized the

opportunities of Baltimore, Md., and its territory for the company's specialty and had determined to establish a branch office in the city. This office is now open, La Rue R. Coppage being in charge. The Western Bank Note & Engraving Co. is one of our oldest and most substantial institutions, incorporated in 1864, and its history has been closely identified with the wonderful growth and development of Chicago and the West. It possesses exceptional facilities for the preparation of steel-engraved securities, the character of its production being deemed of such excellence as to warrant acceptance for listing purposes by the leading stock exchanges at home and abroad. All of its work is executed in specially-constructed fireproof buildings, and every possible precaution is taken to safeguard the varied, extensive and confidential interests of its patrons, who include many prominent individuals, firms and corporations throughout the country, as also numerous municipal, State and foreign governments. The Western facilities are not limited to any particular class of work, but embrace everything in the printing line, whether engraved, lithographed or typed. For forty-one years this establishment has reflected the highest state of its art. The company's business has developed to such an extent as to necessitate the erection of a larger fireproof plant, containing securities vaults and unequaled equipment. These new buildings will be occupied exclusively by the company, and it is quite unnecessary to say that an inspection of this thoroughly up-to-date establishment, combining both pleasure and profit, reveals many details of extreme interest quite unknown in the ordinary printing shop, comparing, as it does, most favorably with others of similar character throughout the world. The Western's management is in the hands of men of extensive practical experience.

TRADE LITERATURE.

Just a List of Users.

Bulletin No. 16 of the Ridgway Dynamo & Engine Co. is just a partial list of users of the McEwen engine and Thompson-Ryan dynamo. It presents the names and addresses of about 125 manufacturers and railroads, nearly 100 coal companies and 130 miscellaneous enterprises which are using the equipments referred to. These are, however, but a few of the company's customers, and the list could be greatly extended. Many of the firms named have from two to twenty McEwen engines and Thompson-Ryan dynamos in daily operation. Anyone needing an engine and dynamo can learn a valuable lesson by glancing through the lists given and noting the prominent companies named. Write the Ridgway Company at its home, Ridgway, Pa.

A Letter to Manufacturers.

The following letter is of interest: "New York, September 13, 1905. Messrs. Mill Owners and Manufacturers, Everywhere on Earth. Gentlemen—It will be to your advantage to remember that by installing rope transmission a saving in space, power, first cost and maintenance charges will be procured. Rope drives are noiseless and less troublesome than gears, cheaper and more efficient than either belts or electricity. 'The Blue Book of Rope Transmission' tells of other advantages, shows how to properly install difficult drives, and will teach you to splice. Sent gratis upon request. We shall be happy to quote you prices for 'American' transmission rope, which is standard throughout the Western Hemisphere. Yours truly, the American Manufacturing Co., 65 Wall street."

Sullivan Automatic Cross-over Dump

The Sullivan automatic cross-over dump is for the rapid and economical handling of coal, ore and rock from mines and quarries. In order that the output of a mine may be handled with the greatest speed and economy, the manner of loading the coal or ore in the railroad cars after reaching the tippie has been a subject of much study. Car dumps of the automatic cross-over type have been found by years of experience to solve this problem most satisfactorily. The Sullivan automatic cross-over dump is a combination of the most desirable features of the Mitchell and Wilson types, which have been manufactured by the Sullivan Machinery Co. of Chicago for more than 20 years past. A coal tippie equipped with one of these devices is shown and the manner of operating is outlined in the company's new publication, Bulletin No. 48E. Send for a copy.

Bargains in Electrical Machinery.

Manufacturers and other buyers of mechanical equipment who may be in the market for electrical apparatus and supplies of any character are advised that a list of bar-

gains that will interest them can be found in the Gregory Bargain Sheet for September. The little publication (vest-pocket size) contains a list of dynamos, motors, transformers, meters, arc lamps, instruments, etc., which are in good operating condition and offered to purchasers at minimum prices. All the apparatus quoted is actually in stock at the works of the Gregory Electric Co., 62 South Clinton street, Chicago. This company issues the booklet referred to. It deals largely in the class of machinery in reference and handles only the approved products of well-known manufacturers. The company is also well known for its repair work, the highest grade of material and workmanship used in this branch having earned for it an enviable reputation.

About Electric Traveling Cranes.

The economy of handling heavy material by electric traveling cranes is now so universally accepted as to be beyond question, but for the moving from place to place of loads weighing between one-half and five tons the use of electric traveling cranes is not as universal as it should be. As the ordinary type of crane is frequently too expensive to justify its installation for this service, Niles-Bement-Pond Company has designed a line of electric traveling trolleys and hoists. These trolleys and hoists run on a single I-beam, making it possible to install them in places where it would be impossible to arrange for crane runways. The expense, too, of putting up the I-beam track is comparatively slight. For loads above five tons it is usually preferable to use the Niles standard electric traveling cranes. A complete detailed description of the machines designed as noted is presented in an illustrated pamphlet being issued by the Niles-Bement-Pond Company. Write the offices at 111 Broadway, New York, for a copy.

Dry Blast.

The application of mechanical refrigeration to drying air for blast furnaces and converter work is destined to become important in the economical production of iron and steel. The use of uniformly dry air produced even in the present inefficient systems has brought about a great increase in capacity and a remarkable saving of fuel, to say nothing of inestimable advantages from a metallurgical standpoint. Being one of the oldest and largest companies engaged in the manufacture of high-efficiency refrigerating systems, and also being the sole American licensee for the Koerting two-cycle double-acting gas engine, whose reputation is well known, the De La Vergne Machine Co. of New York is peculiarly well fitted to solve problems pertaining to this branch of engineering. The new system for drying air by artificial means, on which this company has patents pending, possesses inherent advantages which are claimed will enable it to surpass in efficiency all present systems. This system is diagrammatically illustrated and described in a leaflet the company is now issuing.

Concrete Measuring and Mixing.

The need for accurately-made cement has been apparent for some time, but it remained for the new reinforced-concrete structures to demonstrate the absolute necessity for a properly-made product. It is not alone sufficient that the exact amounts of stone, sand and cement go into the batch, but it is imperative that all parts of the batch be composed of the same proportions and that they be uniformly moistened. These conditions have resulted in the introduction of the Trump concrete measuring and mixing machine, a complete description of which is presented in an illustrated pamphlet now being distributed. Booklet No. 55 tells about the new concrete machine, the importance of uniform and continuous measuring, the measuring device, the moistening device, and presents reports on the performances of the machine, showing its effectiveness in actual use. Booklet No. 56 has the pertinent facts about the Trump measuring and mixing machine for sand-brick and artificial-stone manufacturers. In this booklet is announced that the Trump machine measures accurately and continuously one or more materials, and where there is more than one material, mixed by delivering them continuously to a common chute, into which they flow together and become well mixed in the exact proportions desired. These machines are simple in construction, and are fitted with micrometer-adjustments, so that the amount measured off in a given time and the proportions in which two or more materials are delivered can be varied at will. The Link-Belt Engineering Co. of Philadelphia is manufacturing and marketing the Trump machines. Write for Booklets Nos. 55 and 56.

Ventilating Industrial Plants.

In a recent article by E. S. Farwell regarding "Steam Engineering in Paper Mills" in Cassier's Magazine, the following interesting statements were made: "The ventilation of the machine-room is an unusually important problem. For every ton of paper made two tons of water must be evaporated and carried off by the air of the room before it condenses on the cool surfaces. There are often two machines in each room, each making a ton or a ton and a-half of paper every hour. One pound of air at 132 degrees temperature will carry 0.1177 pound of water at saturation, or at 80 per cent. saturation about 0.60 pound of moisture. One pound of air at zero temperature and 60 per cent. saturation contains 0.0005 pound of water, which may be neglected. For each ton of paper made in 24 hours there will be given off 166.7 pounds of water per hour, which will require 1852 pounds, or 460 cubic feet, of air per minute to absorb it. The amount of heat required to raise this air from 10 degrees below zero to 132 degrees above is found by multiplying the weight of air by 0.2375 and by the difference in temperature, or 142. In addition to the volume of air computed by this method, there must be in large rooms having no hoods over the machines more air provided, which in all probability will short-circuit and not absorb its proportionate amount of moisture. Many successfully-ventilated machine-rooms have an air change every two to six minutes. With a properly-designed system it is not necessary to change so often. The drying rolls of such machines are generally enveloped in a hood, which is usually fitted with two 48-inch disk or propeller fans capable of exhausting from 30,000 to 40,000 cubic feet of air per minute. In cold weather air is forced into the machine-room at a temperature of about 90 degrees, so that we have in the machine-room of a paper mill what is considered the best practice today in heating and ventilating, viz., hot air forced in at whatever temperature required and local ventilating fans exhausting air wherever necessary to meet special conditions."

Perfection in Electric Lighting.

An exceptionally interesting publication is that wherein is described the light-balancing selective-diffuser ceiling, which represents the latest achievement in the illuminating engineering field. The advantages of steel ceilings are now very generally appreciated, also the fact that arc lighting is the only artificial illumination in degree of efficiency and whiteness which will satisfactorily fulfill the requirements of high-class mercantile lighting. While the arc light possesses many points of superiority, it still, in common with other artificial-light sources, fails to distribute the light to a distance sufficient to produce uniform results. In addition to increasing the lighting efficiency, the diffuser ceiling was designed with the purpose of overcoming this defect, with the further advantage of combining art in ceiling construction and effecting aesthetic improvements by concealing the lamp. The light in the immediate vicinity of the lamp is greatly softened and the intensity at points midway between the lamps is increased, while dark shadows are dispersed, and the general effect is an even intensity of light in all parts of the area illuminated. The lamps are placed as high as the ceilings will permit, and are out of the direct line of vision. The intrinsic brilliancy is reduced by the lower shade, so that the light is not trying to the eyes; moreover, the change in intensity of the light in different parts of the room, due to the wandering of the arc, is counteracted by the light-balancing cover, which maintains a relatively steady light in all directions independent of the position of the arc. This balancing cover or corona is particularly useful where ceilings are high and in small rooms where there are one or two lamps. In large areas where a number of lamps are used even illumination is produced by the accumulated light from the different lamps, so that the corona is not so essential. In such rooms, especially if the ceiling is low, an appropriate molding is substituted for the corona. In cases where it is not desirable to install a complete ceiling, the diffuser section, either with corona or molding, can be used with excellent results, aesthetically as well as from a lighting point of view. The publication above referred to is the architects' edition of the American Metal Stamping Co.'s bulletin on the subject of the new ceiling-lighting effects. It includes a treatise on the subject of color and distribution of artificial lights which will interest all store-owners, especially those who sell fabrics. The American Company has its plant at Germantown, Philadelphia, Pa., where requests for the book can be sent. The lamps of the General Electric Co. of Schenectady, N. Y., are used in assuring the perfection of the new system.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., September 13.

The Baltimore stock market was dull during the past week. In the trading United Railways common sold from 16 to 16½; the trust certificates from 16½ to 17; the income bonds from 66¼ to 67; the trust certificates from 65¼ to 66¼; the 4s at 92¼ to 93; Consolidated Gas at 86 and Gas 4½s at 102. Seaboard new common was traded in at 24½ and 25; the first preferred at 88; the 4s at 90½, and the 10-year 5s at 105; Cotton Duck 5s changed hands at 83½, and G.-B.-S. 1sts at 60, the common selling at 9 and the incomes at 30½ to 31. Light & Power 4½s were dealt in at 97.

Bank stocks sold as follows: Union, 120 to 121; Exchange, 180; Marine, 38½; Citizens', 28¼. Maryland Casualty sold at 58.

Other securities were traded in as follows: Baltimore Brick preferred, 52; Macon Railway & Light 5s, 99¼; Wilmington & Weldon 5s, 119; Maryland Telephone 5s, 97½; Atlantic Coast Line of Connecticut 4s, certificates, 5-20s, 93 to 95; Atlantic Coast Line Consolidated 4s, 101½ to 101; City & Suburban 5s, 114¼; Virginia Electric Railway & Development 5s, 99½; Baltimore City 3½s, 1930, 108½ to 108¾; do. do. 1936, 109; do. 5s, 1916, W. L., 119¼; Annapolis & Potomac 5s, 107; Georgia Southern & Florida 5s, 115¼; Potomac Valley 5s, 117; Western Maryland 4s, 89 to 89½; Baltimore, Sparrows Point & Chesapeake 4½s, 94¼; Georgia & Alabama 5s, 112½; Maryland Telephone general mortgage 5s, 81; Baltimore City Passenger 5s, 106½; City & Suburban (Washington) 5s, 105½; Norfolk Railway & Light 5s, 94; Virginia Midland 1sts, 100½; Richmond & Danville 6s, 116; Columbia & Greenville 6s, 116½; Alabama Consolidated Coal & Iron 5s, 91; Northern Central stock, 107; Atlantic Coast Line of Connecticut, 440.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
September 13, 1905.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	162	...
Atlantic Coast Line of Conn.....	100	435	440
Charleston Co. Ry., G. & E.....	50	19	...
Maryland & Pennsylvania.....	100	...	25
Seaboard Railway Common.....	100	...	23½
Seaboard Railway Preferred.....	100	32½	45¼
United Railways & Elec. Co.....	50	16½	17
Bank Stocks.			
Citizens' National Bank.....	10	28	28½
Commercial & Far. Nat. Bank.....	100	135	140
Com. & Far. Nat. Bk. Blue Cfs.....	100	146	160
First National Bank.....	100	...	149
Merchants' National Bank.....	100	168	...
National Bank of Baltimore.....	100	119	120
National Exchange Bank.....	10	11½	12
National Howard Bank.....	100	180¼	185
National Marine Bank.....	10	30	38
National Mechanics' Bank.....	10	...	30
National Union Bank of Md.....	100	120	121
Old Town Bank.....	10	...	11
Trust, Fidelity and Casualty Stocks.			
International Trust.....	100	142	145
Maryland Casualty.....	25	57	58
Mercantile Trust & Deposit.....	50	144	147
Union Trust.....	50	55	59
Miscellaneous Stocks.			
Ala. Con. Coal & Iron Pref.....	100	...	93½
Consolidated Gas.....	100	85½	86
Consolidation Coal.....	100	78	81
Consolidated Cotton Duck.....	50	12½	14
Consolidated Cotton Duck Prfd.....	50	32½	35
G. B. & S. Brewing Co.....	100	8½	9
George's Creek Coal.....	100	70	79
United Elec. L. & P. Pref.....	50	44	...
Railroad Bonds.			
Albany & Northern 5s, 1946.....	...	92½	...
Atlanta & Northern 1st 7s, 1907.....	...	104½	...
Atlan. Coast Line 1st Con. 4s, 1952.....	...	101¼	101½
Atlantic Coast Line (Conn.) 5s.....	...	115	...
Atlantic Coast Line (Conn.) 4s.....	...	93¼	94¼
Atlan. Coast Line (S. C.) 4s, 1948.....	...	103½	...
Balto. & Harrisburg Ext. 5s, 1938.....	...	112	114½
Carolina Central 4s, 1919.....	...	98¼	...
Charleston & West. Car. 5s, 1946.....	...	114	115
Char. Col. & Aug. 1st 5s, 1910.....	...	119½	...
Char. Col. & Aug. 2d 7s, 1910.....	...	110	...
Coal & Iron Railway 5s, 1920.....	...	104	106½
Columbia & Greenville 1st 6s, 1916.....	...	115½	...
Georgia & Alabama 5s, 1945.....	...	112½	112½
Georgia, Car. & North. 1st 5s, 1929.....	...	111	...

Georgia Pacific 1st 6s, 1922.....	123 1/4
Georgia South. & Fla. 1st 5s, 1945.....	115 1/4 116 1/4
Petersburg, Class B 6s, 1926.....	131
Piedmont & Cum. 1st 5s, 1911.....	117
Potomac Valley 1st 5s, 1911.....	117
Richmond & Danville Gold 6s, 1915.....	113 1/4 118
Seaboard Air Line 5s, 10-year, 1911.....	104 1/2 105
Seaboard Air Line 5s, 3-year.....	101
Southern Railway Con. 5s, 1904.....	119 1/2
St. Louis & Carolina 5s, 1902.....	92 1/2 98 1/2
Virginia Midland 1st 6s, 1906.....	100 1/2
Virginia Midland 4th 3-4-5s, 1921.....	111 112
Virginia Midland 5th 5s, 1926.....	111
Western Maryland new 4s, 1902.....	89 1/2 89 1/2
West. North Carolina Con. 6s, 1914.....	115 1/4 116
West Virginia Central 1st 6s, 1911.....	110 110 1/2
Wilmington & W. Gold 5s, 1935.....	119 121

Street Railway Bonds.	
Atlanta Con. St. Rwy. 5s.....	104 106 1/4
Augusta Rwy. & Elec. 5s, 1940.....	106
Baltimore City Passenger 5s, 1911.....	106 1/2
Baltimore Traction Conv. 5s, 1906.....	100 1/2
Central Ry. Ext. 5s (Balt.), 1932.....	116
Charleston Con. Electric 5s, 1909.....	92 1/2 95 1/2
City & Suburban 5s (Balt.), 1922.....	114 114 1/2
City & Suburban 5s (Wash.), 1948.....	105 1/2 105 1/2
Knoxville Traction 1st 5s, 1928.....	103
Lake Roland Elev. 5s (Balt.), 1942.....	117
Lexington Railway 1st 5s, 1918.....	108
Macon Ry. & Lt. 1st Con. 5s, 1953.....	99 1/2 99 1/2
Metropolitan 5s (Wash.), 1925.....	96 1/2
Newport News & Old Pt. 5s, 1938.....	91
Norfolk Railway & Light 5s.....	93 1/2 94
North Baltimore 5s, 1942.....	119 121 1/2
United Railways 1st 4s, 1949.....	92 1/2 93
United Railways Inc. 4s, 1949.....	67 67 1/4

Miscellaneous Bonds.	
Alabama Consol. Coal & Iron 5s.....	91 1/2
Consolidated Gas 6s, 1910.....	108 108 1/2
Consolidated Gas 5s, 1939.....	115 1/4
Consolidated Gas 4 1/2s, Cfs.....	101 1/2 102
G. B. & S. Brewing 1st 3-4s.....	60 60 1/2
G. B. & S. Brewing 2d Income.....	96 96 1/2
Maryland Telephone 5s.....	93 94
Mt. V. & Woodby Cot. Duck 5s.....	83 84
United Elec. Light & Power 4 1/2s.....	96 1/2 97 1/2

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending September 11.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	83	90
Alken Mfg. Co. (S. C.).....	84	89
Anderson Cotton Mills (S. C.).....	104	104
Arkwright Mills (S. C.).....	116	119
Augusta Factory (Ga.).....	75	86
Avondale Mills (Ala.).....	100	105
Belton Mills (S. C.).....	104	108
Bibb Mfg. Co. (Ga.).....	90	104
Brandon Mills (S. C.).....	90	98
Buffalo Cotton Mills (S. C.) Pfd.....	136 1/2	
Cabarrus Cotton Mills (N. C.).....	102	
Chadwick Mfg. Co. (N. C.) Pfd.....	91	
Chiquola Mfg. Co. (S. C.).....	103	
Clifton Mfg. Co. (S. C.).....	101 1/2	105
Clinton Cotton Mills (S. C.).....	146	
Columbus Mfg. Co. (Ga.).....	92	95
Courtenay Mfg. Co. (S. C.).....	99 1/2	101
Dallas Mfg. Co. (Ala.).....	82	85
Danville Mfg. Co. (S. C.).....	59	74
Eagle & Phenix Mills (Ga.).....	112	116
Eastley Cotton Mills (S. C.).....	120	
Enoree Mfg. Co. (S. C.).....	82 1/2	91
Enoree Mfg. Co. (S. C.) Pfd.....	99	102
Enterprise Mfg. Co. (Ga.).....	76	
Exposition Cotton Mills (Ga.).....	175	200
Gaffney Mfg. Co. (S. C.).....	63	68
Gainesville Cotton Mills (Ga.).....	25	
Granby Cot. Mills (S. C.) 1st Pfd.....	50	66
Granville Mfg. Co. (S. C.).....	150	
Greenwood Cotton Mills (S. C.).....	99	100
Grendel Mills (S. C.).....	103	106
Henrietta Mills (N. C.).....	200	
King Mfg. Co., John P. (S. C.).....	93	100
Lancaster Cotton Mills (S. C.).....	100	105
Lancaster Cot. Mills (S. C.) Pfd.....	97	98
Langley Mfg. Co. (S. C.).....	90	95
Laurens Cotton Mills (S. C.).....	161	
Limestone Mills (S. C.).....	95	101
Lockhart Mills (S. C.).....	89	94
Louisville (N. C.) Pfd.....	95	
Louisville Mills (N. C.).....	102	
Mariboro Cotton Mills (S. C.).....	71	
Mayo Mills (N. C.).....	200	
Mills Mfg. Co. (S. C.).....	98	
Mills Mfg. Co. (S. C.) Pfd.....	100	
Monaghan Mills (S. C.).....	100	103
Monarch Cotton Mills (S. C.).....	84 1/2	
Newberry Cotton Mills (S. C.).....	124	
Norris Cotton Mills (S. C.).....	99	103
Odel Mfg. Co. (N. C.).....	96	
Orangeburg Mfg. Co. (S. C.) Pfd.....	79	87
Orr Cotton Mills (S. C.).....	108	
Pacolet Mfg. Co. (S. C.).....	146	151
Pacolet Mfg. Co. (S. C.) Pfd.....	100	106
Pelzer Mfg. Co. (S. C.).....	171 1/2	
Piedmont Mfg. Co. (S. C.).....	174	176
Poe Mfg. Co., F. W. (S. C.).....	125	130
Raleigh Cotton Mills (N. C.).....	100	
Richland Cot. Mills (S. C.) Pfd.....	50	
Ronoke Mills (N. C.).....	130	
Salem Mills (S. C.).....	100	102
Sibley Mfg. Co. (Ga.).....	57	63
Southern Cotton Mills (N. C.).....	81	
Spartan Mills (S. C.).....	132	141
Springstein Mills (S. C.).....	90	100
Trion Mfg. Co. (Ga.).....	131	140
Tucapau Mills (S. C.).....	125	139
Union Cotton Mills (S. C.).....	112	
Union Cotton Mills (S. C.) Pfd.....	95	
Victor Mfg. Co. (S. C.).....	113 1/2	
Warren Mfg. Co. (S. C.).....	99	101
Warren Mfg. Co. (S. C.) Pfd.....	105	
Washington Mills (Va.).....	20	25
Washington Mills (Va.) Pfd.....	92	96
Whitney Mfg. Co. (S. C.).....	117	121
Wicassett Mills (N. C.).....	119	125
Woodruff Cotton Mills (S. C.).....	100	102

American Locomotive Co.

The fourth annual report of the American Locomotive Co. for the fiscal year ended June 30, 1905, shows gross earnings \$24,150,201, decrease as compared with the next preceding year \$8,918,549; expenses \$19,796,533, decrease \$7,608,451; net earnings \$4,353,667, decrease \$1,310,007; interest \$112,186, decrease \$126,000; balance to profit and loss \$607,924,

decrease \$2,067,614, after paying the dividend on preferred stock at 7 per cent., amounting to \$1,750,000, and after making the investment in the Montreal works, amounting to \$1,883,556.

The report says that in calculating the expenses the direct manufacturing cost and all indirect charges against production are considered, the latter including liberal disbursements for maintenance and renewals and the depreciation charge of 20 per cent. of the book value of patterns, drawings, etc. As shown by the financial statement, the directors charged against the income the company's permanent investment in the works of the Locomotive & Machine Co. of Montreal, Canada. The policy of improving and reconstructing shops and machinery has been continued to reduce manufacturing costs. Furthermore, the report says that the purchase of nearly all of the capital stock, preferred and common, of the Rogers Locomotive Works, Paterson, N. J., is to be met entirely from the surplus of the company. The company is paying particular attention to the possibilities of developing electric locomotives and trucks, motor cars, etc.

The officers are Albert J. Pitkin, president; James E. Sague, vice-president; Robert J. Gross (Dunkirk), second vice-president; Leigh Best, third vice-president and secretary; Charles B. Denny, treasurer; Charles E. Patterson, comptroller; Francis J. Cole, mechanical engineer, and Harry C. Hequembourg, general purchasing agent.

New Corporations.

The Farmers' Bank has been organized at Irvine, Ky., with \$15,000 capital.

The Planters' Bank of Schlater, Miss., capital \$100,000, has begun business.

The Bank of Sidon at Sidon, Miss., has begun business with \$100,000 capital.

The Capital City Banking & Trust Co. has begun business at Jackson, Miss., with \$200,000 capital.

The First State Bank of Dallas, Texas, has begun business with George W. Riddle as president and S. J. Elshy, cashier.

The Merchants' Union Fire Insurance Co. of Meridian, Miss., has been authorized to begin business with \$100,000 capital.

The Exchange Bank of Newberry, S. C., has begun business with J. D. Davenport as president and M. L. Spearman, cashier.

Application for a charter for the Bank of Collins at Collins, Ga., capital \$25,000, has been filed by E. C. Collins and others.

The Baker Loan Co. of Dothan, Ala., has filed its charter. The incorporators are Joe, George D., C. F., R. C. and D. W. Baker.

The Phoenix Bank of Columbus, Ga., has been granted a charter; capital \$50,000. R. P. Spencer is the principal incorporator.

It is reported that a new bank and trust company is to be established at Huntsville, Ala., Ike Schiffman being the principal promoter.

The People's Bank is to be established at Stephens City, Va., with \$10,000 capital, by local business men. John M. Steel will be president.

It is reported that D. E. Waggoner, vice-president of the Gaston National Bank of Dallas, Texas, will open a private bank at Richardson, Texas.

The First National Bank of Whitney, Texas, capital \$30,000, has been authorized to begin business with A. G. McMahan as president and E. K. McMahan, cashier.

The First National Bank of Ludlow, Mo., capital \$125,000, has been authorized to begin business with Scott Miller as president and Perry Borders, vice-president.

The Bank of Woodstock has been chartered at Woodstock, Ga., with \$25,000 capital. The organizers are J. H. Johnston,

W. L. Dean, A. R. Fowler, C. C. Dobbs and others.

The Unaka Banking & Trust Co. is reported being organized at Erwin, Tenn., with \$10,000 capital. It is said that either T. H. Hannum or A. R. Brown will be president.

A new bank with \$25,000 capital, to be known as the Citizens' Bank of Millen or the Jenkins County Bank, is being organized at Millen, Ga., by local merchants and farmers.

The Merchants and Farmers' Bank has begun business at Davisboro, Ga., with Samuel Hollis, formerly assistant cashier of the First National Bank of Forsyth, Ga., as cashier.

The Hood County State Bank has filed its charter; capital \$50,000. The incorporators are John J. Hines, John E. Brown, W. S. Walker, G. W. Landers and H. L. Nutt.

The First National Bank of Fairfax, O. T., capital \$25,000, has been approved. The organizers are Charles Pasch, E. A. Bullock, Edward Aikim, R. H. Hassan and J. M. Moody.

The First National Bank of Keota, I. T., has been approved; capital, \$25,000. The organizers are H. D. Price, Charles S. Leonard, B. C. Million, R. A. Bonham and J. W. Robinson.

The West Texas Bank & Trust Co. at San Antonio, Texas, has filed its charter. The directors are G. Bedell Moore, J. H. Savage, Leon Walthall, Ben H. Hammond and J. E. Jarret.

The Merchants and Farmers' Bank of Chapel Hill, N. C., capital \$10,000, has been granted a charter. The incorporators are E. M. Armfield, Wescott Robinson and W. S. Robertson.

The Oklahoma State Bank of Mountain View, O. T., has been granted a charter; capital \$1000. The incorporators are G. H. Moeckel, F. S. Sneed, J. F. Potter, R. E. Sohn and R. F. Allen.

The First National Bank of Rising Star, Texas, capital \$25,000, has been authorized to begin business with William Bohning as president; N. M. Jacobs, vice-president, and D. E. Jones, cashier.

The Bank of Jeffersonville has been organized at Jeffersonville, Ga., with \$25,000 capital. The officers are Joel A. Smith, president; L. O. Benton, vice-president; D. P. Edwards, cashier.

The High Point Real Estate & Trust Co. of High Point, N. C., capital \$125,000, has been granted a charter. The incorporators are H. C. Pitts, George T. Penny and W. F. Armfield, all of High Point.

The Lutherville Banking Co. has been incorporated at Lutherville, Ga., with \$25,000 capital. The incorporators are W. C. McBride, Allen Chandler, Dr. J. W. Taylor, W. F. Culppeper and R. O. Jones.

The Armfield & Armfield Company, brokers, has been incorporated at High Point, N. C., with \$125,000 capital. The incorporators are W. J. Armfield, W. F. Armfield and E. M. Armfield, all of High Point.

The First State Bank of Lillian, Texas, capital \$10,000, has filed its charter. The directors are L. C. Jackson, J. A. Issam, J. T. Cooper, T. B. Cassstevens, all of Lillian; J. C. Smith, D. F. Giggis of Venus, Texas.

The Shelby National Bank at Shelby, N. C., capital \$50,000, has completed its organization by electing the following officers: President, O. L. Watts; vice-president, H. I. Washburn; cashier, Jas. T. Bowman.

The MANUFACTURERS' RECORD is informed by Hon. Frank Wright, mayor, that the Bank of Cave Springs, capital \$25,000, has been organized with Felix Corput as president and W. O. Connor, vice-president.

The Bank of Rural Retreat has been incorporated at Rural Retreat, Va., with

\$15,000 capital. The incorporators are W. F. Gammon, president; J. M. Phipps, vice-president; E. M. Davis, cashier, all of Rural Retreat.

The banking firm of Prendergast, Smith & Co. of Mexia, Texas, capital \$75,000, has filed its charter. The directors are D. M. Prendergast, J. L. Smith, Jack Womack, J. Sanford Smith, B. S. Smith and Walter Womack, all of Mexia.

The Bank of McAlester has been incorporated at McAlester, I. T., with \$25,000 capital, by J. J. McAlester, president; Chris Springer, vice-president; Ed. Hocker, cashier, and J. M. Latham, A. U. Thomas and E. C. Million, directors.

The Home Protective Association of Arkansas, with principal headquarters at Foreman, Ark., has been chartered with the following officers: C. B. Aydelotte, president; J. T. Cowling, vice-president; H. M. McIver, secretary and treasurer.

The Falfurias State Bank of Falfurias, Texas, has filed its charter; capital \$10,000. The directors are Ed. C. C. Lassater, Garland B. Miller, Burke T. Henry, all of Falfurias; Gus R. Scott of Corpus Christi, George W. Brackenridge of San Antonio.

The Seaboard Fire & Marine Insurance Co. of Galveston, Texas, has been licensed to do business with \$250,000 capital. The incorporators are B. Adoue, J. J. Langbein, J. P. Alvey, S. P. Mistrot, R. Waverly Smith, H. Wilkins and John Sealey.

The First State Bank of Moulton, Texas, capital \$25,000, has filed its charter. The incorporators are Mary E. Hicks, Ida M. Nations, J. H. Nations, H. H. Tooley, W. L. Tooley, F. T. Fehrekamp, W. J. Moore, L. E. Moore and John Bueck.

The Bank of Stuart at Stuart, I. T., has been incorporated with \$25,000 capital. The officers are J. J. McAlester, president; W. L. Wooley, vice-president; R. C. Stuart, cashier; directors, J. J. McAlester, C. B. Stuart, O. G. Ross and E. C. Million.

The First State Bank of Emma, Texas, capital \$10,000, has been organized with the following directors: L. T. Lester, president; E. P. Covington, vice-president; Wright Gunn, cashier; J. C. Woody, James S. Posey, J. W. Carter and J. Wilson Boyle.

The Citizens' Bank of Pleasant View, Tenn., has been incorporated, with \$10,000 capital, by W. W. Scott, M. Z. Zuel, G. E. Shaw, C. W. Brashford, R. P. Perry, V. A. Bradley, M. F. Williams, J. J. Bradley, J. R. Hunt, Phineas Trent and W. E. Felts.

The Bank of Tamaha at Tamaha, I. T., capital \$25,000, has filed articles of incorporation. The officers are J. E. McBrayer, president; W. W. Fisher, vice-president; A. P. Harrison, secretary and treasurer. The bank will open for business about October 1.

The Southern Life Insurance Co. has been organized at Fayetteville, N. C., with \$100,000 capital. The officers are: President, E. H. Williamson; vice-presidents, W. J. Johnson, John Blue, A. L. James, R. D. Caldwell; general manager and treasurer, C. J. Cooper.

The McCauley Bank has begun business at McCauley, Texas, with \$20,000 capital. The stockholders are F. M. Long, W. W. Barron, T. O. Martin, H. J. Hadderton and W. F. Martin. W. F. Martin was elected president; H. J. Hadderton, vice-president, and Willie Gains, cashier.

The Bank of Holcomb has been organized at Holcomb, Miss., with \$100,000 capital, by D. L. Holcomb, R. D. Williams, P. D. Holcomb, R. A. McRee, T. P. Lampkin, J. W. Wood, J. S. Early, T. A. Staten, H. S. Staten, W. T. Loggins, C. E. Wright, Ben L. Jones, E. R. McShane and others.

The Milner Banking Co., with \$25,000 capital, to be located at Milner, Ga., has

made application for a charter. The organizers are J. O. Norris, W. M. Rice, W. G. Tyus, Ober S. Tyus, J. H. Phillips, S. J. Hale, Thomas J. Hunt, H. I. Lindsay, J. A. Gardner, Y. R. Coleman and E. T. Ferguson.

The Guarantee Loan, Realty & Insurance Co., with \$100,000 capital, has been incorporated at Salisbury, N. C., by E. P. Wharton, J. S. McCubbins, E. H. Harrison, John S. Henderson, Jas. H. Ramsay, B. B. Miller, John L. Rendleman, A. Lee Smoot, Romert C. Hood and Leo. Wallace.

The Westmoreland Bank of Sumner County has been chartered to do business at Westmoreland, Tenn., with \$8000 capital. The incorporators are C. Harris, C. D. Hanna, B. A. Yates, S. W. Brown, G. W. Barlow, H. M. Freeman, Pearl Snyder, J. F. Witham, Chas. J. Simmons and W. A. Forganon.

The First National Bank of Hendricks has begun business at Hendricks, W. Va., with the following officers: President, B. W. Jennings; vice-president, Lewis C. Dyer; cashier, C. V. Minear; directors, J. B. Clifford, J. E. Poling, C. W. Mosser, J. W. Knopsnyder, T. W. Rain, C. W. Adamson and A. J. Armstrong.

The Bank of Appalachia has been organized at Appalachia, Va., with \$20,000 capital and the following officers: Dr. R. W. Holly, president; T. C. Fuller, vice-president; G. B. Head, cashier; directors, H. F. Whitehead, A. L. Smith, J. B. Caldwell, R. Walter Dickenson, G. B. Head, Wm. Wells and Dr. R. W. Holly.

The First National Bank of Kingston, I. T., capital \$25,000, has organized with the following officers: A. B. Scarborough of Bonham, Texas, president; J. Hamp Willis, first vice-president, and James R. McKinney, second vice-president, and Barlow Roberts, formerly cashier of the First National Bank of Caddo, I. T., cashier.

The First National Bank of Waynesboro, Ga., has been organized with \$50,000 capital. The officers are P. L. Cordes, president; Ed. Fulcher and George O. Womack, vice-presidents; Thomas F. Buxton, cashier; directors, Phil P. Johnston, L. D. Hill, P. L. Corker, Mrs. Inez Jones, George O. Womack, L. P. Herrington, W. H. Davis, Ed. Smith and Ed. Fulcher.

The Bank of Normandy has begun business at Normandy, Tenn., with the following officers: President, J. L. Brandon; vice-presidents, C. S. Ivie and J. W. White; cashier, A. K. Senour; directors, A. G. Landis, E. K. Blair, J. W. Jenkins, W. C. Throneberry, T. L. Huffman, W. J. Allen, W. B. McQuiddy, E. S. Huffman, C. C. Neal, J. F. Phillips and J. L. Stephenson.

The Citizens' State Bank, which is to be established at Jacksonville, Fla., with \$50,000 capital, has elected the following directors: President, D. U. Fletcher; first vice-president, David H. Doig; second vice-president, Charles H. Mann; cashier, J. Denham Bird; F. T. Christie, B. G. White, Irving H. Welch, J. S. Fairhead, H. M. O'Neal, R. H. Paul, Oscar Sewald, B. S. Catlett.

The Citizens' Bank of Trousdale County, recently chartered at Hartsville, Tenn., has elected the following directors: P. W. Hager, president; W. J. Hale, vice-president; R. F. Langford, cashier; James M. Hall, assistant cashier; B. D. Lipscomb, J. L. Dalton, A. C. Welch, J. G. Lowe, J. W. Rankin, J. A. Kerley, A. G. Donoho, Sr., A. R. Dalton, W. M. Lamb and W. A. Oglesby.

New Securities.

Alva, O. T.—The \$700 of District 105 Woods county school bonds have been registered.

Arcadia, Fla.—The \$13,000 of water,

\$12,000 of school and \$5000 of street 5 per cent. 20-30-year bonds offered for sale September 1 have not been sold.

Arcadia, N. C.—An election is to be held October 10 to decide the question of subscribing \$10,000 of bonds toward the stock of the Winston-Salem Southbound Railway Co.

Augusta, Ga.—The city will issue \$145,000 of 4 per cent. refunding bonds. R. E. Allen is mayor.

Augusta, Ga.—The city council has authorized the issuance of \$145,000 of 4 per cent. 25-year refunding bonds.

Ballinger, Texas.—The attorney-general has approved \$20,000 of 5 per cent. 10-40-year Ballinger independent school district bonds.

Bay St. Louis, Miss.—The \$5000 of City Hall and jail bonds have been purchased by the Hancock County Bank for \$5050.

Bethany, Harrison County, Mo.—The State auditor has registered \$5000 of 4 per cent. Bethany school district bonds.

Bolivar, Mo.—Bids will be received by E. H. Potter, county treasurer, until noon September 25 for \$50,000 of 4 per cent. 5-20-year Polk county courthouse bonds.

Brookfield, Mo.—The State comptroller has registered \$3600 of 5 per cent. park-improvement bonds.

Bryson, Texas.—The \$3600 of 4 per cent. 5-20-year Bryson independent school district bonds have been purchased at par by the Jack county school fund.

Clinton, S. C.—Bids will be received by J. A. Bailey, chairman water-works and electric-light commission, until noon September 18 for \$25,000 of 5 per cent. 20-40-year water and electric-light bonds.

Columbia, Mo.—Bids will be received by John S. Bicknell, city clerk, until September 19 for \$10,000 of 4½ per cent. 5-20-year water and light and \$10,000 of 4½ per cent. 5-15-year sewer bonds.

Columbia, S. C.—The \$400,000 of water-works bonds were not sold September 1, no satisfactory offers being received, and it is reported that on October 2 bids will again be opened for the issue.

Due West, S. C.—The question of issuing \$10,000 of bonds is being considered.

El Dorado Springs, Mo.—H. C. Speer & Co. of Chicago have purchased at 103.30 and interest \$5000 of 5 per cent. 5-20-year judgment bonds.

Fairmount, Tenn.—The First National Bank has purchased the \$12,000 of school bonds.

Gainesborough, Tenn.—Bids will be received by W. G. Sadler, city treasurer, until November 1 for \$6000 of 5 per cent. 10-20-year schoolhouse bonds.

Haddock, Ga.—The city has voted to issue courthouse and jail bonds.

Holly Springs, Miss.—The \$20,000 of 5 per cent. Marshall county road bonds have been purchased by F. R. Fulton & Co. of Chicago.

Jackson, Ga.—The city has voted to issue \$39,000 of 5 per cent. water-works and electric-light bonds.

Jackson, Mo.—Cape Girardeau county has voted to issue \$75,000 of 4 per cent. 10-20-year courthouse and jail bonds.

Jacksonville, Fla.—The city council has passed a bill for an election to be held October 3 to decide the question of issuing \$400,000 of drainage, water and sewer extension bonds.

Key West, Fla.—Monroe county has voted to issue \$60,000 of school bonds.

Knoxville, Tenn.—The Knoxville Power Co. has authorized the sale in New York city of \$2,500,000 of bonds. Chas. H. Treat, New York city, is president and John T. Wilder, Knoxville, vice-president.

Lawrenceburg, Tenn.—The First National Bank of Lawrenceburg has purchased at 106.28 the \$25,000 of 6 per cent. courthouse bonds.

Macon, Ga.—An election is to be held

October 3 to decide the question of issuing \$75,000 of paving bonds.

Madison, Ga.—Bids will be received by the board of commissioners of roads and revenues until noon October 10 for \$40,000 of 4½ per cent. Morgan county courthouse bonds. K. S. Anderson is chairman of the board.

Meridian, Miss.—A movement is reported to be under way looking to the issuing of \$200,000 of Lauderdale county road bonds.

Monticello, Ky.—Bids will be received until 8 P. M. September 21 for \$10,000 of 5 per cent. 20-year school bonds. J. P. Harrison is president and J. A. Patton, secretary, board of education.

Oklahoma City, O. T.—School bonds for \$800 of District 66, Oklahoma county, have been registered.

Salisbury, Mo.—In a letter to the MANUFACTURERS' RECORD Mr. William R. Compton, president of the William R. Compton Bond & Mortgage Co. of Macon, Mo., informs the MANUFACTURERS' RECORD that his company has purchased the \$20,000 of 5 per cent. 5-20-year Salisbury water-works bonds, paying \$20,535.

San Antonio, Texas.—The attorney-general has approved \$23,500 of 5 per cent. 40-year city improvement district No. 1 bonds.

Sherman, Texas.—The city is considering the question of issuing \$30,000 of street and water bonds.

Spartanburg, S. C.—Bids are soon to be asked for the \$100,000 of 4½ per cent. 30-year street bonds.

Stillwater, O. T.—School bonds of District 73, Payne county, amounting to \$280 have been registered.

Tyler, Texas.—Smith county is considering the question of issuing \$100,000 of courthouse bonds.

Victoria, Texas.—The election recently held to decide the question of issuing \$10,000 of artesian water bonds failed to carry.

Wesson, Miss.—An election is to be held to decide the question of issuing \$20,000 of 20-year water-works bonds.

Wilmington, N. C.—No satisfactory offers were received for the \$50,000 of 4 per cent. New Hanover county road improvement bonds, and it is reported that the board of county commissioners will receive new bids for the issue.

At Columbia, S. C., sealed bids will be received at the office of the city clerk and treasurer until 2 P. M. October 2 for the \$400,000 of 4 or 4½ per cent. 40-year water-works bonds. Address T. H. Gibbes, mayor. *Further particulars will be found in the advertising columns.*

Financial Notes.

The Bank of Newton at Newton, Miss., has increased its capital from \$25,000 to \$50,000.

The Farmers' Exchange Bank of Hastings, O. T., has increased its capital from \$5000 to \$10,000.

The capital of the Bank of Rockdale at Rockdale, Ga., has been increased from \$25,000 to \$50,000.

The Bank of Batesville at Batesville, Ark., has amended its charter, increasing its capital to \$50,000. J. S. Handford is president and John Q. Wolf, secretary.

The Choctaw-Chickasaw National Bank of Durant, I. T., is reported to have changed its name to the Farmers' National Bank and increased its capital to \$60,000.

It is reported that the Merchants' National Bank of Savannah, Ga., will establish a savings department, which is to begin business about October 1. J. A. G. Carson is president.

The Riddle Exchange Bank of Dallas, Texas, is reported to have been merged with the First State Bank of Dallas, which recently began business with \$100,000 capital. George W. Riddle is president of the new bank.

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The Hopkinsville Savings Bank, recently organized at Hopkinsville, Ky., is reported to have decided to increase its capital from \$25,000 to \$50,000. The bank is expected to begin business in December with James West as president and Gus T. Brannon, formerly of Owensboro, cashier.	

